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PROJECT MARS

by **PHILIP E. HIGH**

Hilton pushed the heap of reports wearily to one side and looked up. He was a thin, sandy man with a straggly moustache and mild but astute blue eyes.

"Gentlemen, I will make this as brief and as blunt as possible—we're getting nowhere fast. Apart from the excavation side, we're exactly where we were when we came out here three years ago. Naturally, Earth wants to know what we're up to and, just when, the billions being poured into this project are going to pay dividends." He paused, looking from one to the other, frowning. "I'm not looking for scapegoats and I lack the specialised knowledge to tell you how to do the job, but it seems to me that you're all shut up in your special compartments and getting nowhere. The only answer I can see to this is re-organisation and, by God, I intend to reorganise." He paused, his mild face suddenly grim. "I've been damn busy trying to make your vague reports sound like something factual and stalling off a lot of pointed questions from earth. Candidly it's a job that's kept me chained to a desk but that phase is over now, I'm appointing myself co-ordinator." He thrust out his chin. "Gentlemen, we're starting *now* and I have no intention of

referring to these." He pointed to the heap of papers. "I want your problems and difficulties aired, right here in this room."

'My God,' thought Saffry, the chemist. 'The old man's tough, deep down he's a leader. He gave us a lot of rope and now he intends to hang us with it. Not that anyone could blame him, if Earth decided to call accounts, the penalty for failure would be laid at this door.'

Hilton looked once more at the faces in the uncomfortably crowded circular room. "Mr. Minter, I'll start with you. Your report only confirms the murals revealed when the excavations began, we *knew* these people had space travel—have you nothing to add?"

Minter shifted uncomfortably, took off his obsolete spectacles and began to polish them nervously. "We're bogged down on translation," he said, unhappily. "All we *have* are the murals."

Chinnock pushed his way to the front, his stocky figure aggressive and his face slightly flushed. "I'd like to say a word if you've no objections, sir. I knew the whole business would devolve on me and, I might add, I'm prepared for it. I'm absolutely snowed under with requests, chits, demands for this and that, which I haven't a hope of handling in ten years."

Hilton nodded, his face expressionless. "This is a progress report, Mr. Chinnock, kindly confine yourself to the facts and leave the recriminations until later."

Chinnock made an angry gesture with his hand, swallowed, then went on more calmly. "Every department comes with requests for translations but I just can't handle it all. These people had a written language but it's limited, very limited. There must have been some other form of communication as well."

"How far have you got with it?"

Chinnock hesitated. "Everywhere and nowhere. We fed the symbols—it's a series of indented markings, rather like inverted braille—into a selective computer and managed to break it down into a comprehensible alphabet. To make sure we referred the whole thing to Earth and it was confirmed without question. Unfortunately, when we apply it to artifacts, it doesn't make sense." He turned slightly. "Mr. Selby kindly agreed to bring one or two samples along to illustrate the difficulty."

Selby, the curator, stepped forward. With his untidy fair hair and long neck, he looked rather like an ungainly ostrich but there was no

doubt he had studied and classified the objects brought to him with the utmost care. He fumbled in a large case and produced a spherical object about the size of a football. "This is some kind of container, despite its shape it always stands one way and will not roll. One presses these two small indentations here and the small upper section may be removed—so." He held it out for inspection. "As you see, sir, the major section of the container holds some kind of bluish goo—er—jelly. Note the language symbols running from right to left at the base of the container."

Hilton looked at Chinnoek. "Well?"

Chinnoek moved his head briefly as if his collar was too tight and flushed uncomfortably. "That's what is driving my department crazy, sir. The translation reads:—HOUSE WITH FOUR ROOMS—TYPE 7." He caught the expression on Hilton's face. "The translation was confirmed by six language institutes on Earth, sir," he added, hastily. "Er—Mr. Selby, another, please."

Selby fumbled in his case again and produced another sphere about half the size of the first. He opened it. "Same as before—goo—this time yellow."

Chinnoek cleared his throat. "For the benefit of the departments which expect to come up with an answer overnight, the indentations—also confirmed by Earth—read, on a broad translation:—TO CLEAN AND REPAIR—FOR INTERIOR USE ONLY."

There was a long uncomfortable silence in which only Selby seemed at ease, he was searching in his case again. "Another example, sir, really nothing to do with Mr. Chinnoek but quite as incomprehensible." He held something up. "A small green cube which looks, and feels, like jelly. It's wrapped in some kind of transparent substance which, so far, we have been unable to remove. We found a room literally packed with the things, whole shelves reaching from floor to ceiling. A rough count gave us a figure just short of a million."

Hilton tugged at the corner of his moustache. "This transparent covering in which the jelly is wrapped, wouldn't acid dissolve it, or couldn't it be burnt off?"

Leas stepped forward, his face grim. "I must take responsibility for that, sir. If anything 'happened,' anything dangerous, it would be my pigeon. As Precautions Officer I forbade such extreme measures." He

took the cube from Selby and held it up, meaningly. "Jelly or gelignite, Mr. Hilton? We haven't a clue as to these people's technology, for all we know we may have opened up an ammunition dump. Impatience, measures lacking caution, might get us blown clean off the planet."

A voice at the back of the room said, derisively: "Technology did you say, Mr. Leas—what technology?"

"And what do you mean by that, Mr. Prentis?" Hilton's voice was warningly abrupt.

"Sorry, sir, like the majority here I guess I'm a little worked up about the whole business. It's like a gigantic riddle with no logical answer. Sometimes I wonder if these people were a race of jokers who deliberately constructed a set-piece for amusement. A kind of cosmic jest to keep the finders puzzling uselessly for centuries. Take the language to begin with—a house with four rooms, type 7—some blue goo in a football. From my side of the fence it's even crazier. We are unearthing a city which promises to be bigger than Greater London and Greater New York put together. The interior walls of the buildings are adorned with pictures some of which depict recognisable spaceships with star charts to confirm the opinion. Other pictures show aircraft and the streets of the city full of vehicular traffic." He paused as if suddenly short of breath.

"To run a vehicle, fly an aircraft, let alone get a spaceship off the ground, one needs a technology—where is it?" He looked angrily about him. "A mechanical civilisation, whatever the power source, must conform to certain defined principles. The buildings for example have elevator shafts and elevators—what the hell drives them? I've checked for hydraulic power, pulleys, electricity, everything. If I could find a button or a switch, I could take it apart and find out what makes it tick but there isn't such a thing to be found. In a basement room we found—according to the translated symbols on the door—a sector power house. It contained a six-foot container like a Grecian urn full of green goo and that was all. Mr. Selby will bear me out when I assure you, that out of all the artifacts unearthed to date, there is not a single object which could be described as a mechanical device. There are no wheels, no springs, no cogs, no nuts and bolts, no pins or paper clips."

Hilton looked at him for a long second then he rose slowly. "I seem to have had you all on the carpet before I heard the evidence, for that I

must apologise. I had no idea you were faced with problems so complex and of such magnitude." He looked about him and shook his head slowly. "Really it's my fault, I should have taken time off from that desk to find out what was going on. Nevertheless we cannot let the matter rest there. Earth is breathing down our necks and, unless we produce something fast, the next supply ship is going to bring a man with a lot of pointed questions and an axe. The programme already suggested therefore must continue with myself as co-ordinator. I propose, therefore, organising you into assault units, to tackle these problems, where possible, as a team—"

Saffry lay in his bunk and scowled at the ceiling. It was all very well Hilton speaking of an assault team but when you were the only chemist on the project, it meant an individual attack. True, Hilton had promised him one of the containers of goo to work on but if he did as well with that as he had with everything else he'd tried, he would have to report failure. In the first place, most of the stuff he'd attempted to analyse had been chemically impossible, the basic substances just couldn't live together without becoming unstable, yet somehow these people had done the impossible. Secondly there was Leas with his precautionary measures: "How do you know it won't explode if you try that, Mr. Saffry?" And, of course, you had no answer, with the chemical insanities that this planet held, anything might happen.

He rose wearily and stared through the small round window which was now almost obscured by dust. Dust, constantly rippling, constantly drifting, following the paths of the winds. How many times did a grain of dust circle the planet in a year? Could you mark a few and follow them round out of curiosity?

'I'm getting tired,' he thought. 'I'm butting my head against an insoluble problem and it's getting me down. Why the hell did man come to Mars in the first place and, in the second, why did that fellow Maitland on the fourth expedition, have to discover a projection which might be the top of a building?'

The fifth expedition had comprised seven ships holding experts and excavators . . .

He had been only ten at the time but even now he could recall the excitement in the announcer's voice. "Evidence of an ancient but ad-

vanced civilisation has been discovered on Mars. Messages received today from the expedition state that a large building has already been partly revealed and the existence of a large city buried beneath the sand has been confirmed by sounding instruments. Preliminary investigations suggest that the Martians—now presumed extinct—achieved a civilisation far in advance of our own . . .”

Such had been the beginning, public imagination was fired and money had poured into the construction of new ships and the setting up of a base on Mars itself. Well, they were here, squatting on the outskirts of the first excavations faced with a riddle which began with the first building revealed.

Saffry rubbed his forehead tiredly. It was all riddles. The Martians were no longer assumed extinct, they were assumed—departed, gone away. Where had they gone? Why, out of all the murals, with which they had adorned their walls, was there no picture of a Martian?

The city was in a remarkable state of preservation. Had they intended to return and might they not still do so? Were all the containers, cubes and God knows what, placed there for the homecoming? Was the goo some kind of canned food or had some Martian joker amused himself by, figuratively speaking, switching labels?

God, he'd wanted to come here, ever since he was ten; worked to the small hours night after to night to qualify, to realise a dream—planetary chemist of the Mars project. Hell, what a planet! Always blowing yet never enough to breathe. A nasty shrunken little sun which warmed nobody and hadn't even the guts to put out the stars even at midday.

Saffry began to pull on his suit slowly, vaguely conscious that he would be late for Hilton's morning conference but too depressed to care.

When he arrived the conference was well under way.

“I think we may safely rule out the idea that the jelly cubes are food,” Hilton was saying. “The orderly arrangement infers something else—any suggestions?”

“Records?” suggested Palmer.

“A library?” said someone else with more confidence. “Maybe those are Martians books; no doubt they are wrapped for preservation purposes.”

"That's the most logical suggestion so far." Hilton was nodding to himself. "I propose we put them under the magnascopes to see if there is a join in the transparent covering—"

Saffry got away half an hour later, relieved that his lateness had gone unnoticed, and clutching a spherical container of goo. The translated indentations informed him that it was for cleaning and repairing (interior use only). He supposed he would have to follow Hilton's line of reasoning and begin with the obvious—rub it on something dirty and see if it cleaned.

It sounded simple. After an hour of futile struggle and increasing profanity, he hadn't begun such a simple test. The goo stayed tight, it refused to be scooped, pried or shaken loose. A sharp knife passed through it and, somehow, it refused to remain in a scoop. The container itself defeated him, how the hell could you get it out when the contents were bigger than the aperture? As a last resource he tried a hand vacuum, the goo rose up to the nozzle taking the container with it. Carefully he turned the vacuum off and sat down. For a minute the temptation to throw the whole lot into the corridor and jump on it had been almost overwhelming.

There was a timid knock on the door and Selby entered. "Brought the morning coffee, old man."

"Er—thanks." Saffry suppressed a scowl of irritation.

"Not at all, as a matter of fact Hilton sent me along to give you a hand if you need it. There's not much a curator can do when everyone is messing around with magnascopes."

And what the hell, Saffry asked himself, could a curator do in his laboratory save get in the damn way? "Nothing you can do at the moment, old chap." He was keeping his voice pleasant with an effort. He liked Selby as an individual but in the small cramped laboratory his tall gangling figure was an irritation and potential menace.

"Mind if I stick around and watch?" Selby laughed self-consciously. "I might learn something, you know—er—where shall I put the coffee, up here on this shelf?" Without waiting for an answer he placed the container on a developer tray, precariously balanced on two suction-pegs.

Saffry, frozen, watched the pegs give way. The tray fell on a beaker

of distilled water, which broke. The coffee container knocked over a bottle of vegetable oil and both broke. The mess swept across the bench, steaming coffee, fragments of plastic glass and a thin film of oil.

"I say, I'm awfully sorry, terribly clumsy of me." Selby made a gesture of apology and knocked down a tube of sulphur with his cuff, spilling its contents in the center of the coffee.

Saffry gripped the edge of the bench and counted slowly and carefully up to ten. It didn't work. "You bloody fool," he exploded. He glared at the spreading mess on the bench. "Do you realise the work entailed just to get this cleared up? Water, as you may have realised, is valuable. Reclamation won't provide more to clean a lab bench. On Earth I could clean it up with a piece of rag or cotton waste but with freightage running at five thousand an ounce they don't bother with that kind of thing. I have, therefore, to put on a heated suit, sand shoes and breather-mask. I have to find a container, go outside, fill it full of sand, return, empty the sand on this mess and suck the whole lot up with a hand vacuum. The bench will, of course, remain only slightly less filthy than at present, whereat, if I am not too old, I'll finally get around to cleaning the vacuum."

Selby went red, then white and began to stutter painfully. "I—I—can't apologise enough, l-l-look, will you accept my whole water ration tomorrow? There should be enough to clean the bench completely—"

Saffry saw that the other was genuinely upset and his anger vanished as quickly as it had come. "Forget it—sorry I blew my top, I should be apologising, not you. Candidly I'm just damn edgy, this problem is getting on the top of me."

"I'll help, I'll go and get the sand." Selby was pathetically eager to prove his sincerity and the chemist warmed to him.

"We'll both go, share the burden between us." He laughed and pointed to the goo. "I wish I knew how to use that stuff, it could save us a long walk and a lot of trouble."

Selby laughed, more at ease. "I wish it would clean it for us, *I really wish it would.*"

They returned with Selby sneezing. "These damn masks let the dust in wholesale."

"Maybe that's what they have in mind." Saffry pushed open the door

with his shoulder. "Some sort of—" He stopped. He came out hurriedly, shutting the door behind him.

"Something up?" Selby looked concerned.

Saffry shook his head, somehow he found the wall of the corridor and leaned against it, shivering. There was an icy feeling at the back of his neck and the muscles of his face seemed nerveless and rigid. He made a helpless gesture at the door and tried desperately to relax.

Selby looked at him in a puzzled way, opened the door cautiously and looked inside. "What's up? Everything is in apple pie—" His voice trailed away. Carefully he came out, even more carefully he closed the door behind him, his face was putty coloured. After a time he said. "They'll never believe us, will they?"

"No," said Saffry. "I don't think they will. I'm not even sure I believe it myself." Carefully he extracted the last cigarette of the week's ration, lit it unsteadily and tried to rationalise the situation. The beaker which had been broken was back in its usual place, undamaged. So was the tube of oil and the tube of sulphur, both with their correct contents. Carefully placed in the centre of the bench was the coffee container full of coffee and the bench was *clean*.

Saffry stared at the wall and didn't see it. Everything in the lab was as it had been before the mess. How? He was conscious of a multitude of goose pimples covering his body. According to Chinnoek, the translation on the container read:—TO CLEAN AND REPAIR—FOR INTERIOR USE ONLY.

"I think," he said after a long silence, "we'd better make another mess, go away for half an hour and pinch each other to make sure we were not dreaming."

When they returned nothing had happened. The mess had spread slightly, covering the bench and dripping slowly to the floor.

Selby shook his head slowly. "Didn't work, did it? Lucky we didn't run straight to Hilton, he'd have slapped us straight in the psych' room." He frowned at the goo. "I almost believed we'd stumbled on something, I wish it had worked, *I really wish it had worked*. After all we can't both dream the same—" His voice choked to silence and he stepped back hastily. "Oh, my God," he said shrilly. "Oh, my God—look!"

Hilton wiped sweat from his face. "If I hadn't seen it for myself—"

He looked uneasily at the spherical container. "What makes it tick—is that the correct word?"

"Selby and I spent two days discussing and experimenting. It's thought-receptive, responsive to a mental command but it's no use being vague about it, you have to think *at* it."

There was a long silence, all eyes looked, and somehow failed to look, at the container.

"Technology," said Prentis finally. "I've been looking for a technology—what do you call *this*?"

"Suppose," said Palmer carefully, "we went to the power house and—er—directed our thoughts at it."

"No!" The force with which Leas' fist came down on the table made them jump. "For God's sake stop and think. If this city was mechanical we'd check circuits, trace controls, find out what did what and why it did it."

"I fail to see—" began Selby, mildly.

"You fail to see!" Leas' voice was harsh. "Have you considered, Mr. Selby, that the Martians may have guarded their city, that in activating it we may also activate the equivalent of automatic defense mechanisms."

Selby paled. "Sorry, I hadn't thought of that. I expect Mr. Palmer—" He looked about him. "Where is Palmer?"

They stared at each other. No one had seen him leave, all eyes had been fixed on Leas.

"He can't have gone to the power house," said Hilton. "He was here long enough to get Leas' warning, where else could he have gone?"

"My God, the library!" Saffry's chair toppled sideways. "Selby and I have a theory about that, just going to bring it up." He wrenched open the door.

In the changing room, Palmer's locker was empty, breather-mask, heated suit and sand shoes had gone.

Saffry struggled into his own equipment, panting. He had to stop Palmer before he got to the library—if it was a library. Palmer, obviously, had jumped to the same conclusions as he and Selby, unfortunately only the conclusion and not the implications.

Outside, the thin, ice cold-Martian air seemed to bite at Saffry even

through the heated suit. Despite the urgency of the situation, the sense of endless drifting desolation struck forcibly at his mind. Mars was an empty sterile plain of bitter shadow or a huge naked room lit by a tiny bulb in a distant ceiling which never truly dispersed the darkness.

Dimly, about a hundred yards ahead of him, and hearing the excavations, he could see a blurred figure shuffling determinedly forward. Saffry cursed his clumsiness with the shoes; he seldom left the tunnel linked domes of the project and he was not proficient in the shuffling walk adopted by 'outside' personnel.

He wasn't going to catch Palmer, he knew that but perhaps he could stop him before he began working inside the building. He was vaguely conscious of other figures stumbling out of the dome behind him but he didn't look back, there was no time. If he didn't get there and stop Palmer, God knew what might happen.

He blundered over the heaped sand surrounding the excavations and came to the first of the buildings, a tall, ridged, windowless construction which looked like an enormous beehive. His feet touched the rubbery-feeling surface of the Martian road and thankfully he kicked off the sand shoes and began to run.

He was too late, he knew that as soon as he entered. Palmer was already reaching up for one of the cubes which, strangely, was glowing faintly and protruding from the shelf. He was standing directly under the light the techs had fixed when the building had first been opened and his eyes, through the vision plate of the mask were narrow and intent.

Saffry tried to shout. "Don't touch it." But the mask choked his voice to an inaudible mumble.

Numbly, still stumbling forward, Saffry saw the other take the protruding cube in his hand. As he did so, the thin transparent covering rolled back like a withering leaf.

The chemist tried to leap the last ten feet, tripped and fought to regain his balance, feeling a sense of desolation as Palmer touched the exposed cube with his naked hand.

It wasn't pretty. Behind the face plate, Palmer's eyes suddenly dilated and screwed up. He totted a few uncertain paces forward, tore off the breather-mask and stared unseeingly before him. Saffry knew he was dead long before the icy air with its near-absence of oxygen could strike

the lungs. He stood swaying, face contorted into a mask of rigid muscles, froth creeping from the corners of his mouth, then he crumpled and fell sideways.

The medic leaned forward, both hands on the table, his face stiff and not a little frightened. "Palmer died of heart failure."

"Heart failure?" Hilton stared at the table.

"Primarily heart failure. There was severe hemorrhage of the brain, some of the neural fibre seems—" The medic hesitated. "—for want of a better description, fused, burnt out."

There was silence. Hilton drummed his fingers softly on the table and finally looked up. "Perhaps it's time we faced a few facts. We're trying to speed things up and we can't." He sighed. "We expected a technology, we expected recognisable thought patterns and culture but we found neither." He made a strange bewildered gesture with his hands. "I feel rather like a medieval alchemist trying to open a nuclear reactor. I'm just as stupid and the experiment is equally dangerous."

The telephone purred softly at his elbow and he lifted the receiver absently. "Yes?" A pause, he pulled at the edge of his moustache. "But there's not one due for nine months. How long did you say? Nineteen hours eh?" He laughed abruptly, harshly and without humour. "Let's hope it's one of ours." He replaced the receiver carefully and looked up. "Radar says there's a ship coming in, they're beaming but reception is a mess." He paused, staring in front of him. "Costs a lot of money to send a ship the long way, preapposition."

Prentis took out a cigarette, looked at it and put it back in its plastic tube. "Manwood," he suggested.

"He's the man they'd send, wouldn't they?" He grinned twistedly. "A man with a lot of pointed questions and an axe. It looks like the stall is over, boys, just as we were beginning to get somewhere."

Manwood was a stocky man with a square chin, a go-getter personality and small humorous black eyes. They were not humorous now. "You're all here I take it?" He did not wait for an answer. "There is no need to tell you why I'm here and I won't mince words. Earth is fed up, really fed up. In the twenty-five years this project has been under way, the total return is exactly one hundred and eighty photographs of

excavated Martian buildings." He glowered at them. "Agreed you are not responsible for the earlier years but you are responsible for the last six. You are supposed to be a specially chosen team of experts, trained for the task, drawing literally fabulous salaries, and what have you sent back to justify yourselves, for God's sake?"

He swept his arm out angrily at the round, dust-coated window. "Out there you have the biggest find in history, a complete city of a race a thousand years in advance of our own. By now Earth should be benefiting from that discovery, new drugs, new techniques, new applications, her culture should have leapt ahead."

He placed both hands on the table and thrust out his chin. "This project has already cost Earth one hundred and seventy billion credits. No civilised culture, no economy, can support an investment that big without dividends. I make myself plain?"

"Heads are going to roll," suggested Selby with unexpected calm.

Manwood glared at him. "You run ahead of me, sir. I'm going to get something out of this city if I have to ship every man back in public disgrace and start with another lot." He made an abrupt angry gesture. "I've received so many reams of meaningless reports that I hardly need a ship. I could have made a bridge of the paper and walked here. Earth wants something more out of this planet than paper and I'm here to see that she gets it. Back home we're sick to death of vague reports and long verbal evasions. Know what they're calling you on Earth? Not the Martian project. Oh, no, they call you"—he rolled the words over his tongue unpleasantly "Project—Stall."

He squared his shoulders. "I'm here. I can't be stalled off. Now, gentlemen, if it's not too much trouble, what have you got to show?"

Hilton rose, his face unexpectedly hard. "We can show you a dead man," he said bitterly.

Manwood made a movement as if to step forward angrily then hesitated. Quite obviously he was shaken and, for the moment, unsure of his ground. "A dead man, did you say?"

Hilton nodded. "I'm sorry I had to break it so brutally, Manwood, but you were quite prepared to start the executions before you'd heard the defence. Do you think we've *liked* having to stall?" His quiet voice rose suddenly. "If you're investigating a new type grenade, you don't start investigations with a hammer."

Manwood had the grace to acknowledge the rebuke but he was still an angry aggressive man. "You have a point there, Mr. Hilton. I am, of course, open to be convinced by any evidence you care to bring forward. On the other hand, if the Martian culture is dangerous, why haven't you told us, man?"

Saffry rose. "I'm only the chemist here, but we haven't told you, because, without evidence, you wouldn't have believed us."

"Not believed you!" Manwood's voice was challenging.

"One cannot explain a culture which has no parallel with Earth's over an interplanetary radio," cut in Hilton quickly. "You would have had us all back as psychiatric cases."

"Are you prepared to back that statement with a logical outline?"

"Yes." Hilton's face was pale and remote. He withdrew a piece of paper from his pocket. "This is a message I could have sent but didn't. I wonder what you would have done on Earth if I had." He read from the paper: "The Martians achieved a technical culture without technology. They built cities, transport, artifacts and spaceships without mechanical aid." Hilton tossed the paper to one side. "Well?"

Manwood opened his mouth and closed it again, then he felt for the chair and sat down. "Can you prove this?"

"Not only prove it beyond doubt, but Mr. Saffry our chemist, has volunteered, at the risk of his life incidentally, to undertake an experiment which may solve the enigma of Martian civilisation once and for all."

Manwood looked from one to the other expressionlessly, slowly his brows drew down and his jaw, if anything, became squarer than before. "Very well, I'm open to a demonstration but I'll tell you all now, it had better be damn good. I've promised Earth a complete report within three days so don't waste four months talking about it."

Hilton smiled thinly. "Twenty minutes will do as a starter. Mr. Selby show Mr. Manwood the container."

Selby did so and Chinnock quoted the endorsed translation.

Hilton waited until Selby had placed the container on his desk then said: "Watch please." Carefully he withdrew his old fashioned fountain pen from his pocket and broke it in half, letting the ink form a small black pool on the polished surface of his desk.

Saffry added a bag of sand and broke a small bottle of sump oil from one of the exterior crawlers in the middle of it. "Ready, Selby?"

Manwood half rose, his face red with anger. "What the hell are you fools playing at—conjuring tricks?"

Hilton said: "Shut up," so sharply that Manwood sat down muttering angrily.

Only Hilton, Selby and Saffry knew what was going to happen, the others craned forward.

"My God!" It was an exhalation and Manwood's face was suddenly colourless. He watched the goo in the container rise in the middle, undulating and flow over the side. He watched it spread across the desk like an obscene and vibrating jelly and somehow flow over the ink, the sump oil, the sand, the glass and the broken pen. He saw the thing draw itself up into a lump, grow slender, hair-like tendrils which waved and reached into an orifice appearing in its side. The pen was withdrawn first, complete, then a small glass bottle unbroken and filled with sump oil. The thing shivered, the tendrils wilted and seemed to melt and, still shivering, flowed back across the table and into the container.

Manwood fought down an impulse to get up and run from the room. The thing had not only separated the mess chemically, it had repaired the receptacles and refilled them with the correct fluids. The untidy heap of sand had vanished and, being useless, had probably been absorbed. How did it know it was useless? Good God, it said to *clean* and repair, didn't it?

He watched Hilton pick up the pen with a hand which was none to steady, write with it and return it to his pocket. "You see?" His voice was as nervous and unsteady as his hands.

Manwood swallowed twice, breathing deeply, trying to get a grip on his nerves. "What the devil is it?"

"I wish to God we knew." Hilton's voice reflected something akin to despair. "Mr. Saffry and our Medic think it's a constructed organism, some sort of pseudo-life. We know it's responsive to thought and fulfils its purpose on receipt of a direct mental order but more than that—" He spread his hands helplessly.

Manwood stared at the container, unseeingly. Pseudo-life with an intelligence confined to its primary purpose and, somewhere inside it, a

built-in workshop and laboratory. What sort of people were these Martians, for God's sake?

Hilton rose. "Would you care to come along to one of the excavated buildings for a further demonstration?"

"Yes—er—yes, if you wish." Manwood rose, noting with detached unease, that his legs felt peculiarly weak and unsteady. He had come to Mars to bring his personality to bear on the project, to shake up, vitalise and, if necessary, depose but not, definitely not, take part in a nightmare.

Saffry sat in the fold-chair and sweated. At the time, with the knowledge that Manwood was on his way, the experiment had not only seemed a good idea but reasonably safe. It no longer seemed a good idea and the undertaking had grown in his mind to something positively suicidal.

The long narrow 'library' with its stacked shelves of green jelly cubes looked, despite the daylight tubes, positively sombre and reminded him unpleasantly of some family vaults he had once visited.

When Hilton and Manwood came in, followed by the rest of the team, sweat had fogged his face plate so much that he was unable to distinguish one from the other.

Someone plugged in a 'com lead. "Sure you want to go through with this?" Hilton's voice.

Nod, nod, jerkily. "Yes—yes—sure." What an absurd lie! Was he completely insane? Somehow he pulled himself together and stood up. Strangely, his momentary panic was replaced by an almost detached calm. Carefully he recalled the words he had rehearsed and began to repeat them forcefully in his mind.

There was a soft orange glow from one of the shelves and one of the cubes slid slowly outwards for a full three quarters of its length as if drawn by invisible hands.

Steadily he walked towards it, reached up his hand and lifted it out. The transparent covering rolled back, leaving the cube exposed.

Now! If he hesitated his nerve would fold up like an undermined scaffolding.

He laid his hand firmly on the cube, keeping his mind, as far as possible, empty. For a second or so nothing happened then suddenly his arm tingled. . . . Insane colours danced briefly before his eyes and the breath rushed from his lungs. For an uncountable time he seemed to hang in soundless emptiness, trapped like a fly in amber, with the inside

of his head being twitched and shaken and slowly growing too big for his skull. Then he began to fall and darkness engulfed him completely.

He regained consciousness surrounded it seemed by a sea of faces. A voice said. "Thank God he's alive!"

"Stand back, Mr. Hilton, please." Something pricked his arm. "You're all right, Saffry, go to sleep, all you need now is rest . . ."

Manwood banged his fist on the table. "I don't like the way you're handling things at all, Hilton. Half the time I'm in the dark and I don't even know what you're trying to *prove*."

Hilton's mild blue eyes met his, untroubled. "Neither do we. The experiment was Saffry's own idea but he kept us pretty much in the dark." He rose as Saffry entered. "Better now, old chap?"

The chemist nodded. "Almost back to normal, thank you." Two days in the sick room had restored most of his colour but his eyes still looked sunken and, in some indefinable way, haunted.

Hilton waited until he was comfortably settled in his chair. "Mr. Manwood is a little impatient, perhaps you could explain what you had in mind when you went to the library."

"Yes, yes, of course." Saffry leaned back a little tiredly in his chair, conscious that he was commanding more attention than at any time in his life yet curiously unmoved by it. "I was working partly on logic, partly on hunch." He paused. "I can't remember who it was who suggested that the room full of cubes was a library but, after the goo turned out to be responsive to a thought impression, it seemed pretty obvious that the Martians were primarily telepathic. It occurred to me suddenly that if that was the case, the 'library' of a telepathic race would contain not recorded sound, pictures or even microfilms but a series of telepathic impressions. In fact, when Selby and I discussed the matter, we began to refer to the objects, almost without thinking, as 'thought cubes.'"

"You mean," said Manwood, with uncharacteristic diffidence, "you suspected that the Martians had found a way to inscribe a telepathic impression into these objects."

"They have." Saffry's voice had something final about it.

"Yet those impressions killed Palmer, why didn't they kill you? Not that I'm denying they nearly did, just what saved *you*?"

Saffry shrugged slightly. "Palmer arrived at the same conclusion as

myself and Selby but he was too anxious to follow up. He ran at it like a bull at a gate without pausing to consider the possible repercussions. In the first place, we are not a telepathic race and can only receive the impressions in the cubes by direct contact. Secondly, and far more important, not only were the Martians far in advance of our own civilisation, their conceptions, thinking processes and attitudes of mind were wholly alien to our own thought patterns. I should imagine that Palmer, anxious to gain knowledge and air it before anyone knew, selected a subject far beyond the capacity of his mind to receive."

"My God, it was too much for his brain." Manwood was suddenly putty-coloured. "But how the hell did he *get* that particular subject?"

"Assuming that the 'books' were sensitive to a thought impression, he concentrated on the subject he wanted. The cube, or its covering, is sensitive, and reacts as you have seen."

"What a conception," said Chinnoek, in a thick voice. "But I still can't understand how you got away with it, Saffry."

"I picked my subject rather carefully, but, perhaps, there, I took the biggest chance of all. You see, I was working entirely in the dark, I didn't know what the Martians were like, they might have been constructed like robots, hatched like eggs, or come into full maturity with cellular fission. It was a chance I had to take." Saffry paused and smiled thinly. "I concentrated on General Information—for an infant."

There was a long uncomfortable silence, finally broken by Hilton. "And what the Martians simplified for an infant, laid you out cold for seven hours, by God!"

"But you learned something, didn't you? You must have learned something." Chinnoek was on his feet, tense and excited.

"Something—yes—something." Saffry ran his hand tiredly across his eyes. "The Martian viewpoint is so totally alien, their conceptions so encompassing that the human mind can only take a little of what it receives. I know where they went and why but even that confounds our own science and gives a totally different conception of the universe."

Chinnoek, obviously restraining a raging impatience, said, with unnatural calm: "Couldn't you explain just a little more."

Saffry smiled with faint bitterness. "They moved on, that's all, they mentally outgrew their home."

"Ah, a population problem, they outgrew their home and had to seek another sun system." Chinnock was nodding to himself knowingly."

"No, I don't mean that at all." Saffry sighed. "That's what I mean by new conceptions and an alien viewpoint. According to their conception, the universe is like a pond—that's the nearest I can get to it—we're not even in the water yet, we're still in the sludge at the bottom."

"That's a spiritual conception, surely?" Hilton was frowning.

"Is a man educated in a slum and becoming conscious of his environment a spiritual conception as you understand it, Mr. Hilton? The nature of the universe varies, as the race progressed from Martian to super-Martian, they perceived their environment and moved on to a place in the universe more suited to them."

Hilton said: "Yes, yes, I see now." He looked withdrawn and thoughtful. For a brief instant, he thought he had seen something in Saffry's eyes which was not quite human. But of course, Saffry's mind had been alerted slightly to receive a Martian thought impression and, of course, at that moment the chemist had been explaining things as a Martian.

Saffry clinched the matter by explaining it. "I wouldn't touch another cube for a hundred million. I'd lose my identity. I'd be thinking part like a Martian. My thought patterns, at times, even to myself, seem a little peculiar."

"Can't you tell us something about the city?" It was Manwood now. "I've got a report to make tonight." His aggressiveness had gone and he was looking worried.

Saffry leaned back wearily in his chair. "You can activate it if you like, it's quite safe. The goo in the power house is a sort of matrix for receiving and transmitting energy to the rest of the sector. It's an energy eater, you see, and its function is to absorb solar or cosmic radiations and transmit that energy as food."

"Food!" Hilton was pale.

"Yes, the Martians were organic engineers, they constructed artificial life and set it to work for them. The city is suspended now, sleeping, but it can be awakened if you wish."

"You mean we can actually get the Martian machinery working?" Prentis, the technician, half rose, his face eager.

"It isn't machinery as you understand it. The city, the buildings, everything are sentient. The buildings, once activated, are adaptable, ad-

justing their temperature and functions to the mental commands of the occupants."

Prentis sat down heavily. "I was looking for a technology—I could have looked forever."

Saffry smiled faintly. "But it is a technology, Prentis. The Martians have achieved with pseudo-life what we fumble at with machines. They've simply constructed organic thought-responsive mechanisms and put them to work."

Prentis put his head in his hands. "Organic engineering, goo mechanisms. You won't find me in a sentient building, it would be like walking into someone's stomach. I might get digested." He almost glared at the chemist. "How the hell can there be a technology without a wheel? How could you move things?"

Saffry smiled a thin amused smile which was not quite human. "It seems to me Mr. Prentis, that you move around and function most efficiently without one."

Manwood nodded as if agreeing with the remark and his bombast had gone entirely. "I apologise. I apologise to you all. I never dreamed I'd find anything so alien as this. It will take us years to clear up." His face blanked suddenly. "Oh, God, I've got to send that report." He looked helplessly and almost pathetically from one to the other. "What'll I say?"

"Well," Hilton's smile was almost beatific, "I'm sorry to say this but it looks as if you'll have to stall—"

PITTSBURGH WORLD SCIENCE FICTION CONVENTION

The Pittcon's Committee's plans for this Fall's 18th World Science Fiction Convention to be held at the Penn-Sheraton in Pittsburgh over Labor Day Weekend are increasingly interesting.

Dirce S. Archer, Chairman of the Convention Committee, writes that they will have the entire 17th floor for con activities, "and the PS is not a small hotel".

James Blish, winner of the 1959 "Hugo" award for his novel, the superb *A CASE OF CONSCIENCE*, will be Guest of Honor. Isaac Asimov, Sam Moskowitz and many others will be on the program.

Send in your membership *tonight*—\$2.00 in this country, \$1.00 if overseas—to PITTCON, c/o Dirce S. Archer, 1453 Barnsdale Street, Pittsburgh 17, Pa. Make your checks payable to P. Schuyler Miller, Treasurer, or 18th World Science Fiction Convention Committee.

H.S.S.

BIOLOGICALLY SPEAKING

by **KENNETH JOHNS**

Biologically speaking, *Homo sapiens* is not a particularly stable genus. With mutations springing up left, right and centre from the miniature missiles ejected by dying radioactive atoms and cosmic ray nuclei from space, only a dynamic equilibrium in which the bad die young and do not reproduce themselves saves the human stock from disintegrating into sub-families of mutant monsters.

Often the results are so subtle that we alter the balance and only realise it long afterwards. One remarkable instance—yet typical in its way of the whole process—occurred in Africa with the heredity trait known as sickle cell anaemia.

A large part of the population of Africa suffers from an alteration to the genes, in that part of the haemoglobin in the blood was changed. This change means that when the blood cells are starved of oxygen, these haemoglobin cells contract into typical sickle shapes and become damaged. This mutant type of haemoglobin led to anaemia and was, therefore, a bad mutation that should have bred itself out of the human race.

So much for the theory. The fact was that half the humans in Africa

had this 'bad' mutant trait. There must, therefore, be some valid reason for its retention. It was eventually realised that sickle cells were more resistant to malaria so that the disadvantage of anaemia was more than offset by the increased resistance to malarial infection.

Now that malaria, under a world-wide onslaught, is passing under control by means of widespread use of insecticides and total warfare on its mosquito carrier, sickle cell individuals no longer have an advantage—so, slowly, the tide will turn towards the predominance once again of the usual haemoglobin cell.

If this delicate juggling with the basic structures of life can occur here, what fantastic variations will face us when faster-than-light drive enables Man to fan out to the stars and try to colonise planets which aren't *quite* like Earth. Planets which are so obviously un-Earthlike and hostile might prove, eventually, to be easier to handle. Maybe a dozen or more generations will pass before some latent factor is brought out, already disseminating its changes through the colonists' genes.

Man's body is a bomb, with the genes as touch papers—and there are plenty of lighted matches in the Universe.

But, equally, Man is a unique animal—at least on Earth—and has now the ability deliberately to alter his own body, mind and genetic material. For better or worse, we may soon be able to duplicate the societies envisaged in *Brave New World*, *Limbo* 90 and "1984." In some instances, as so often happens when facts take over from fiction, it has already been shown that we can go beyond these dreams.

Subliminal advertising on TV is a typical and characteristic way of utilising this idiot's peepshow on some showings today—but does not in itself seem to be particularly efficient. A far more direct method—the push-button, pleasure or pain drill, has been shown to be far more effective and perfectly feasible far beyond the lengths so far attempted.

First tried out on rats, the system calls for a miniature electrode to be fitted into the pleasure centre of the brain and connected to a tiny plug permanently screwed into the skull. A small jolt of DC current sends the animal into ecstasy—and the rat is immediately an addict. Rats so fitted were provided with a button that, when they pressed by their paws, gave the necessary pleasure-shock. They preferred this to eating and sleeping. One rat punched his button 50,000 times in

twenty-four hours and was still going strong when he was unplugged to fall asleep at once, exhausted but happy.

Taking this one step further, scientists fitted tiny radio receivers under the rats' skins so that their electric shocks could be remotely controlled by the experimenter—and then used the pleasure shocks and rewards for learning. The rats learned faster than they normally did.

But then electrodes were fitted into pain centres in their brains. Under this stimulus the rats, grimly and frighteningly, learned even faster.

Thus provided comes pre-packaged the blueprint for a truly totalitarian society. A miniaturised radio receiver and two electrodes embedded in the brain of every adult would make them happy, contented members of society—or else. If you've never known continuous pain you'll never understand the punishment that could be meted out to recalcitrant citizens at the mere pressure of a button.

An H-bomb war seems almost clean in comparison with such a society.

In contrast to these morbid extrapolations of current scientific research, the bright side of the coin is shown in the new-found ability to build an electronic sense into a human body and connect it directly to the brain. The gadget is simple: just a few turns of insulated silver wire wound around a one inch long iron bar and the whole embedded in plastic. This is inserted into a muscle and the coil connected to a nerve ending. Now all that is needed is a coil held near to the skin above the buried coil and an input signal and electronic amplifier.

The system is used to replace completely destroyed human ear mechanisms—damage sustained for example by surgery or streptomycin—on a straightforward linkage. Sound impulses are picked up by a microphone, the resulting currents amplified and pushed through the external coil, the varying magnetic field so produced induces corresponding currents in the buried coil and so excites the auditory nerve.

The only apparent snag is that the patient has to relearn the meaning of sounds—but he is recompensed by the extension of his auditory range up to 40,000 cycles per second as against the normal ear reaction up to 15,000—we do not normally react to the supersonic sounds above this.

A further step could be taken by connecting a similar coil to a

phrenic nerve and imparting an impulse every four seconds, thus stimulating breathing in the paralysed and doing away with the current iron lungs.

What also may be possible in the future—assuming, that is, that anyone would so desire—would be to take a baby and replace all its senses by electronic senses, connect it to a computer, train it with pain-pleasure impulses—and you've created yourself an intelligent, living machine to run a factory.

But even this is clumsy engineering to what may be done. Let's go further back into the basics. If the present human model does not quite fit society's requirements, they'll just use a little biochemical engineering and alter the foetus after conception. That will probably involve manipulation and growth of the ova in vats in artificial media,—remember *Brave New World* where even the word 'Mother' was an obscenity?

It is now sixty-eight years since the first transference of fertilised ova from one rabbit to another followed by successful birth of the young. Recently, scientists have taken this two stages further. One group arranged for fertilised rabbit ova to be shipped from Massachusetts to London by airliner. Kept for thirty hours in serum held at $+10^{\circ}\text{C}$ in a vacuum flask, the ova were successfully implanted into the London rabbits.

Whilst successful in their efforts in deep freezing spermatozoa, the scientists failed completely to store ova at sub-zero temperatures.

However, the scientists have been able to grow fertilised mice ova in a completely synthetic liquid. Growth continued up to the point where the ova need to attach themselves to a womb—and they were then transferred to a foster mouse, from which they were eventually born as normal young mice.

Attempts to grow embryos beyond the point where they require attachment to a womb demand exceptionally expensive equipment and rigorously sterile conditions and so far there has been very little success. But if the need was great—if some sudden catastrophe or challenge arose to spur the quest of science—there is little doubt that a crash programme could solve this and all the attendant problems.

Deep freeze storage of ova and spermatozoa could enable Man to

colonise extra-solar systems, even employing less than faster-than-light drive speeds. During the long journey, the quiet vaults could preserve a reservoir of 'normal' human life to reinvigorate those who may have crewed the ship—or, more graphically, such a store might be needed to restock the Earth if our planet was seared by mutant-making weapons.

These are the ways in which humanity might be made to dance to order, to be disciplined and marshalled, by pain-pleasure electrodes in the brain, by subliminal pressures. These are the ways in which scientists are attempting to alleviate the hardships of the deaf and the paralysed. These are the ways in which, looking far into the future, methods might be found for preserving the race.

But what of the current experiments—on animals—that might be perverted actually to change Man himself?

Science fiction has long speculated upon men like ants—but what is being done—today—on this and allied fields?

One of the characteristics of Man is his dissatisfaction with practically every aspect of life—whether it be society or physical shape. So, incorrigibly, he attempts to change both.

How successful he has been with shape can be seen in a visit to Cruft's dog show, where by selection of natural mutations, he has bred the original dog line into a series of dazzling varieties.

The wild cattle that roamed the great primordial plains, free to turn ugly horns on carnivores or to flee in a rippling sea of rumps and outflung tails, have been changed by Man so that today a cow *must* be milked—she overproduces and wouldn't last a day on those same wild plains.

Gorgeous flowers throng our gardens, demanding incessant toil to keep them as we wish them to appear; left to their own devices they would revert to spindly masses with tiny flowerheads, be crippled by diseases—or just die out. Mankind can't keep his fingers off his planet or the flora and fauna growing there—and evolution is too tardy an agency for a man wanting to see results within a life span of three score years and ten.

Inevitably, Man couldn't keep his fingers off Man.

Although, biologically speaking, *Homo Sapiens* is not a particularly

stable genus, the way in which mutations cancel out under the stress of continued living means that over the short period of time *Homo Sapiens* has existed, his basic shape and functions have not altered. The human foot that adapted itself to running over the plains in pursuit of food because the trees for swinging in had vanished is the same foot that now controls the accelerator of fast cars and presses the rudder pedals of supersonic aircraft.

The ways in which it is possible to *influence* Man carry both frightening and hopeful pictures for the future. The ways in which it is possible to *change* Man carry the same promises, magnified tenfold.

Experiments have been carried out on chickens and ducks and mice in the attempt to penetrate down into the basic building patterns of heredity and to find out how to change offspring to a predetermined and uncharacteristic type not before known.

Kushner, working at the Moscow Institute of Genetics with white chickens, found that their offspring regularly included less than three per cent birds with a few coloured feathers among the white. But when similar hens were given twice weekly blood transfusions from coloured New Hampshire birds, ten percent of the chicks had one coloured feather.

Continuation of the transfusions in this generation resulted in the production of some chicks completely covered in coloured feathers.

Just how the blood change altered the gene pattern is anyone's guess.

Working with Pekin ducks, J. Benoit of France has shown that extracts from the reproductive organs of another type of duck can, by injection, completely alter their physical characteristics. In these experiments, within four months of the first injections, weight, carriage, colour and texture of feathers, colour of bills and tameness had all changed.

The suggestion that the desoxyribonucleic acid, which is the building block of the genes, has in some way become incorporated in the genes of the injected ducks is difficult to understand but must have taken place. For, of 26 ducklings raised from the eggs of the altered Pekin ducks, 18 retained the same peculiar characteristics of their parents. One race had been artificially transformed into another by altering the parents' genetic characteristics.

It means that *Homo Sapiens* and his children are no longer de-

pendent on the genes of his parents. Genius, physical perfection and resistance to illness can be transferred from one individual to another.

If desirable characteristics can be tailored into a man before birth—nature will take care of the rest.

It would be a humorously sobering, a chilling reflection on our desires and methods of obtaining those desires, to catalogue the various systems dreamed up over the centuries for ensuring the birth of children of a sex wanted by the parents.

Gordon, of Michigan State University, has worked out a system which gives him better than average control over the sex of unborn rabbits, which is a great stride into unknown territory. In using the latest techniques of science he may very well soon provide the answer sought throughout the years—positive control of the sex of unborn children.

His system depends upon the difference in reaction between sperm cells containing X chromosomes and those containing Y chromosomes. When the ovum is fertilised by a sperm with an X chromosome, the child will be female; Y chromosomes produce boys. So if the sperm cells can be separated and labelled, then the required sex will follow.

By suspending the cells in solution and passing a small electric current under the favourable conditions it is possible to sort out male from female; X sperms move to the anode and Y sperms to the cathode. The process is not clear cut and Gordon's results reflect that; but instead of the usual 50-50 male and female division of rabbit litters, he obtained 80% female after insemination with his selected X sperm. For the beginnings of the art, this is a satisfying result.

Having, in the future, decided on the sex of the child, the next step will be to tailor the foetus to fit requirements still more rigid. It may be possible to transfer the fertilised ovum from one woman to another, possibly in the first instance because the true mother—the donator of the ovum—may have poor health. The woman who carried the child would serve only in the capacity of foster mother or human incubator. But who can envision the snares of emotion and possession that might follow such transference?

Carrying this type of biochemical trickery a step further, it may be possible to replace the nucleus of an ovum by the nucleus taken from an-

other person. The new nucleus could originate from a man or a woman. This means not only that parthenogenesis—self-fertilisation—could apply to human women but also that a man could be the true genetic father and mother to his child. The man has provided both sides of the equation and the woman serves merely as the human incubator.

Having thus assured that the human race will continue even if all men died off suddenly, the next step is to change the end product to tailor the child. Already bacteria have been mutated by desoxyribonucleic acid and it seems likely that hereditary factors from one person could be transferred to another, through the reproductive cells.

As yet only imagined by science fiction writers, a class system might emerge, where every person fitted into a tight niche in a rigid system of workers, soldiers, scientists and thinkers. This throws up the dark side of our possible future. A brighter possibility is the Spare Parts Bank.

Already deep freeze storage is being used to keep a stock of corneas for eye grafting and skin, arteries and bones ready for replacement of injured or diseased human parts. The main trouble is that the body rejects foreign cells and all organic matter has to be removed from bone, for example, before it can be grafted successfully.

A 5,000 year old bone from Ancient Egypt has been successfully implanted into a dog. Men are walking around with arteries from others in their bodies; synthetic arteries of nylon have also been revolutionary successful in treating heart and kidney faults.

Once the allergy due to foreign cells has been overcome, it will be possible to store and graft in kidneys, glands and hearts. So far, it has only been possible to transfer kidneys between identical twins.

Yet this allergy reaction to foreign cells does not occur in the embryonic state. Parts of embryo chickens' brains have been transferred from one chicken embryo to another. The embryo at this time is a mere 0.2 inches long, and fantastically precise surgical technique is required to remove two of the five parts of the primitive brain. The results here—30% continued living until the day before they should have hatched, 6% hatched into viable chicks, of which one lived for as long as 70 days—sound poor but in fact are encouraging.

X-rays have been used on chicken embryos to produce monsters—two-headed, four legged, one fused-leg—in order to study what effect

fall-out radiation has on life, and to seek possible checks and preventives.

The effort to transplant parts of rats' brains into chick embryos failed; the operation was successfully performed, but all died in 17 days and none hatched.

One fact proved by this work was that the tissues of these embryonic patients would link; they were compatible, unlike adult tissues which will not knit. Further work along these lines may well reveal the basic needs for the grafting of a dead person's leg onto the living body of a man whose leg has been lost in a car smash. The human spare parts bank is a normal and vital section of hospital equipment, along with anaesthesia and plasma banks.

With all these different lines of transmogrification working out the destiny of the human race, there will be need for strong and understanding legislation to cope with the myriad problems that will arise. The law will be changed alongside the human body. From these first fumbling experiments with rats and chicks and rabbits may well emerge the master hand of body planning, when unborn children can be endowed with genius, with physical strength and strong will power. The weaknesses of all humanity could be weeded out.

At last humanity might face the stars with all a planet's skill and all a planet's genetic resources fashioned into the bodies and minds of her exploring sons.

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PLANET OF DEATH

by **BRIAN W. ALDISS**

At other times of day, the pigmies brought the old man fish from the river, or the watercress which he loved, but in the afternoon they brought him two bowls of entrails. He stood to receive them, staring over their heads through the open door, looking at the blue jungle without seeing it. He was in pain. Yet he dared not let his subjects see that he suffered or was weak; the pigmies had a short way with weakness. Before they entered his room, he had forced himself to stand erect, using his heavy stick for support.

The two bearers stopped before him, bowing their heads until their snouts were almost in the still steaming bowls.

"Thank you. Your offering is received," the old man said.

Whether or not they really comprehended his clicking attempt at reproducing their tongue, he could not tell. Shaking slightly, he patted their scaly heads, after which they rose and departed with their rapid, slithering walk. In the bowls, oily highlights glistened, reflected from the sunshine outside.

Sinking back onto his bed, the old man fell into his usual fantasy: the pigmies came to him, and he treated them not with forbearance

but hatred. He poured over them the weight of his long-repressed loathing and despal, striking them over the heads with his stick and finally driving them and all their race for ever from this planet. They were gone. The azure sun and the blue jungles were his alone; he could live where nobody would ever find or worry him. He could die at last as simply as a leaf falls from a tree.

The reverie faded, and he recognised it for what it was. He knotted his hands together till the knuckles stood out like cobble stones, coughing a little blood. The bowls of intestines would have to be disposed of.

Next day, the rocket ship landed a mile away.

The big overlander lumbered along the devious forest track. It was losing as little time as possible with Barney Brangwyn's expert hand at the wheel. On either side of the vehicle, the vegetation was thick, presenting that sombre blue-green hue which characterised most of the living things on the planet Kakakakaxo.

"You neither of you look in the pink of health!" Barney observed, flicking his eyes from the track to glance at the azure lights on the faces of his two companions.

The three members of the Planetary Ecological Survey Team (PEST for short) appeared to have blue snow-shadows shading very plane of their countenances: yet in this equatorial zone, and with the sun Cassivelaunus shining at zenith, it was comfortably warm, if not hot. The surrounding jungle grew thickly, with an almost tropical luxuriance, the bushes seeming to sag under the weight of their own foliage. It was strange to recall that they were heading for a man who had lived in these uninviting surroundings for almost twenty years. Now they were here, it became easier to see why he was universally regarded as a hero.

"There's plenty of cover here for any green pigmies who may be watching us," Tim Anderson said, peering at the passing thickets. "I was hoping to see one or two."

Barney chuckled at the worried note in the younger man's voice.

"The pigmies are probably still getting over the racket we made in landing," he said. "We'll be seeing them soon enough. When you get as ancient as I am, Tim, you'll become less keen to meet the local big-

wigs. The top dogs of any planet are generally the most obstreperous—*ipso facto*, as the lawyers say.”

He lapsed into silence as he negotiated a gully, swinging the big vehicle expertly up the far slope.

“By the evidence, the most obstreperous factor on Kakakakaxo is the climate,” Tim said. “Only six or seven hundred miles north and south of here, the glaciers begin, and go right on up to the poles. Admittedly our job is to vet the planet to see that it’s safe for colonists to move in, but I shouldn’t want to live here, pigmies or no pigmies; I’ve seen enough already to tell you that.”

“It’s not a question of choice for the colonists,” Craig Hodges, leader of the team, remarked. “They’ll come because of some kind of pressure on them: economic factors, oppression, destitution, or the need for lebensraum—the sort of grim necessities which keep us all on the hop.”

“Cheer up, Craig!” Barney exclaimed. “At least Daddy Dangerfield likes it here! He has faced Kakakakaxo for nineteen years, wet nursing his pigmies!”

“Don’t forget he crashed here accidentally in the first place; he’s just had to adjust,” Craig said, unwilling to be shaken out of a melancholy which always descended on him when the PEST first confronted the mystery of a new planet.

“What a magnificent adjustment!” Tim exclaimed. “Daddy Dangerfield, God of the Great Beyond! He was one of my childhood heroes. I’m greatly looking forward to seeing him.”

“Most of the legends built round him originated on Droxy,” Craig said, “where half the ballyhoo in the universe comes from. I am chary about the blighter myself, but at least he should prove helpful to us—which is why we’re going to look him up.”

“Of course he’ll be helpful,” Barney said, skirting a thicket of rhododendron. “He’ll save us a wack of field work. In nineteen years—if he’s anything like the man he’s cracked up to be—he should have accumulated a mass of material of inestimable value to us. You can’t tell me Daddy won’t simplify our task enormously, Craig; don’t be a pessimist.”

The PEST task was seldom simple. When a three-man team landed on an unexplored planet like Kakakakaxo, they had to categorise its

possible dangers and determine exactly the nature of the opposition any superior species might offer to colonising man. The superior species, in a galaxy tumbling with diversity, might be mammal, reptile, insect, vegetable, mineral, or virus—but frequently it was, as Barney hinted, so obstreperous that it had to be obliterated entirely before man could move in—and exterminated so that the ecological balance of the planet was disturbed as little as possible.

Their journey ended unexpectedly. They were only a mile from their ship when the jungle on one side of the overlander gave way to a cliff, which formed the base of a steep and afforested mountain. Rounding a high spur of rock, they saw the pigmies' village ahead of them. When Barney braked and cut out the atomic motor, the three of them sat for a minute in silence, taking in the scene.

Rapid movement under the trees followed their arrival.

"Here comes the welcoming committee," Craig said. "We'd better climb down and look agreeable, as far as that is possible; Heaven knows what they are going to make of your beard, Barney. Get your gun on, Tim, just in case it's needed."

Jumping to the ground, the trio were almost immediately surrounded. The pigmies moved like jerky lightning, enclosing the ecologists. Though they appeared from all quarters, apparently without prearranged plan, it took them only a few seconds to form a wall round the intruders. And for all their speed, there was a quality of stealth about them, possibly because they made no sound. Perhaps, Tim thought encouragingly to himself, it was because they were shy. Yet there was something menacing about their haste; they were ugly creatures.

They moved like lizards, and their skin was like lizard skin, green and mottled, except where it broke into coarse scales down their backs. Pigmy-sized, none of them stood more than four feet high. They were four-legged and two-armed. Their heads, perched above their bodies with no visible neck, were like cayman heads, fitted with long, cruel jaws and serrated teeth. These heads now swivelled from side to side, like gun turrets on tanks seeking sight of the enemy. It looked like an apprehensive gesture.

Once they had surrounded the ecologists, the pigmies made no further move, as if the initiative had passed from them. In their baggy throats, heavy pulses beat.

Craig pointed at a cayman-head in front of him and said, "Greetings! Where is Daddy Dangerfield? We intend you no harm. We merely wish to see Dangerfield. Please take us to him."

He repeated his words in Galingua.

The pigmies stirred, opening their jaws and croaking. An excited clack-clack-clackering broke out on all sides. Overpoweringly, an odour of fish rose from the creatures. None of them volunteered anything which might be construed as a reply. The wave of excitement, if it was that, which passed over them emphasised their more formidable features. Their stocky bodies might have been ludicrous, but their two pairs of sturdy legs and, above all, their armoured jaws would deter anyone from regarding them as figures of fun.

"These are only animals!" Tim exclaimed. "Look at them—they relieve themselves as they stand, like cattle. They possess none of the personal pride you'd expect in a primitive savage. They wear absolutely nothing in the way of clothes. Why, they aren't even armed!"

"Don't say that until you've had a good look at their claws and teeth," Barney said cheerfully. He had caught the loathing in the youngster's voice, and knew how often loathing cloaks fear. He himself felt a curious, dry tension, originating less from thought of the pigmies than from the reflection that the three of them were in an unknown world, without precedents to guide them; when he ceased to feel that tension, he would be due for retirement.

"Move forward slowly with me," Craig said. "We are doing no good just standing here. Dangerfield must be about somewhere, heaven help him."

Thigh-deep in clacking caymen-heads, who kept them encircled, the PEST men advanced towards the settlement, which lay in patchy tones of blue sunshine and blue shade ahead. As far as they could tell, this manoeuvre was resented by the pigmies, whose noise redoubled. When they spoke, their grey tongues wagged up and down in their long mouths. They backed away without offering opposition. Following Craig's lead, Barney and Tim kept their hands above their sidearms, in case of trouble.

So they moved slowly into the village. The strange aspect of the place now became apparent. Bounded on one side by the cliff face,

the village stood under trees which grew straight out of the dark soil. Up in the thick bluish foliage of these trees, an immense colony of gay-coloured birds, evidently a sort of weaver, had plaited a continuous roof out of lianas, climbers, leaves and twigs. Under this cover, on the dropping-bespattered ground, the pigmies had their rude huts, which were no more than squares of woven reed propped at any angle by sticks, to allow an entrance. They looked like collapsed bivouacs.

Tethered outside these dismal dwellings were furry animals, walking in the small circles allowed by their leashes and calling dolefully to each other. Their mewling cries, the staccato calls of the birds, and the croaking of the caymen-heads, made a babel of sound. And over everything lay the ripe stench of decaying fish.

"Plenty of local colour," Barney remarked.

In contrast to this squalid scene was the cliff face, which had been ornately carved with stylised representations of foliage mingled with intricate geometrical forms. Later, the ecologists were to find that this work was crude in detail, but from a distance its superiority to the village was most marked. As they came nearer, they saw that the decorated area was actually a building hewn in the living rock, complete with doors, passages, rooms and windows, from the last of which pigmies watched their progress with unblinking curiosity.

"Impressive! Their claws can be turned to something else than attack," Tim observed, eyeing the patterns in the rock.

"Dangerfield," Craig called, when another attempt to communicate with the pigmies had failed. Only the whooping birds answered him.

Already the pigmies were losing interest. They pressed less closely round the men. Several scuttled with lizard speed back into their shelters. Looking over the knobby heads of the crowd, Barney pointed to the far side of the clearing. There, leaning against the dun-coloured rock of the cliff, was a sizeable hut, built of the same flimsy material as the pigmy dwellings, but evidently containing more than one room. As they regarded it, a man appeared in the doorway. He made his way towards them, aiding himself along with a stout stick.

"That's Dangerfield!" Barney exclaimed.

A warming stream of excitement ran through Tim. Daddy Dangerfield was something of a legend in this region of the inhabited galaxy. Crash-landing on Kakakaxo nineteen years ago, he had been the first

man to visit this uninviting little world. Kakakakaxo was off the trade routes, although it was only fifteen light years from Droxy, one of the great interstellar centres of commerce and pleasure. So Dangerfield had lived alone with the pigmies for ten standard years before someone had chanced to arrive with an offer of rescue. Then the stubborn man refused to leave, saying the native tribes had need of him. He had remained where he was, a God of the Great Beyond, Daddy to the Little Folk—as the sentimental Droxy tabloids phrased it, with their usual affection for titles and capital letters.

As he approached the team now, the pigmies fell back before him, still maintaining their clacking chorus. Many of them slid away, bored by affairs beyond their comprehension.

It was difficult to recognise, in the bent figure peering anxiously at them, the young, bronzed giant by which Dangerfield was represented on Droxy. The thin, sardonic face with its powerful hook of nose had become a caricature of itself. The grey hair was long and dirty. The lumpy hands which grasped the stick were bespattered with liver marks. This was Dangerfield, but appearances suggested that the legend would outlive the man.

"You're from Droxy?" he asked eagerly, speaking in Galingua. "You've come to make another film about me? I'm very pleased to see you here. Welcome to the untamed planet of Kakakakaxo."

Craig Hodges put out his hand.

"We're not from Droxy," he said. "We're based on Earth, although most of our days are spent far from it. Nor have we come to make films, our mission is rather more practical than that."

As Craig introduced himself and his team, Dangerfield's manner became less cordial. He muttered angrily to himself about Droxy.

"Come along over and have a drink with us in our wagon," Barney said. "We've got a nice little Aldebaran wine you might like to sample. You must be glad to see someone to talk to."

"This is my place," the old man said, making a move in the direction of the overlander. "I don't know what you people are doing here. I'm the man who beat Kakakakaxo. The God of the Crocodile Folk, that's what they call me. If you had pushed your way in here twenty years ago as you did just now, the pigmies would have torn you to bits. I

tamed 'em! No living man has ever done what I've done. They've made films about my life on Droxy—that's how important I am. Didn't you know that?"

Tim Anderson winced in embarrassment. He wanted to tell his gaunt relic that Dangerfield, the Far-Flung Father, the Cosmic Schweitzer, had been one of his boyhood heroes, a giant through whom he had first felt the ineluctable lure of space travel; he wanted to tell him that it hurt to have his legend destroyed. Here was the giant himself—bragging of his past, and bragging, moreover, in a supplicatory whine.

They came up to the overlander. Dangerfield stared at the neat shield on the side, under which the words Planetary Ecological Survey were inscribed in grey. After a moment, he turned pugnaciously to Craig.

"Who are you people? What do you want here?" he asked.

"We're a fact-finding team, Mr. Dangerfield," Craig said levelly. "Our business is to gather data on this planet. Next to nothing is known about ecological or living conditions here. We are naturally keen to secure your help; you should be a treasury of information—"

"I can't answer any questions! I never answer questions. You'll have to find out anything you want to know for yourselves. I'm a sick man—I'm in pain. It's all I can do to walk. I need a doctor, drugs . . . Are you a doctor?"

"I can administer an analgesic," Craig said. "And if you will let me examine you, I will try to find out what you are suffering from."

Dangerfield waved a hand angrily in the air.

"I don't need telling what's wrong with me," he snapped. "I know every disease that's going on this cursed planet. I've got fiffins, and all I'm asking you for is something to relieve the pain. If you haven't come to be helpful, you'd best get out altogether!"

"Just what is or are fiffins?" Barney asked.

"None of your business. They're not infectious, if that's what's worrying you. If you have only come to ask questions, clear out. The pigmies will look after me, just as I've always looked after them."

As he turned round to retreat, Dangerfield staggered and would have fallen, had not Tim moved fast enough to catch his arm. The old fellow shook off the supporting hand with weak anger and hurried back across the clearing. Tim fell in beside him.

"We can help you," he said pleadingly. "Please be reasonable."

"I never had help, and I don't need it now. And what's more, I've made it a rule never to be reasonable."

Full of conflicting emotion, Tim turned and caught sight of Craig's impassive face.

"We should help him," he said.

"He doesn't want help," Craig replied, not moving.

"But he's in pain!"

"No doubt, and the pain clouds his judgment. But he is still his own self, with his own ways. We have no right to take him over against his expressed wishes."

"He may be dying," Tim said. He looked defiantly at Craig. Then he swung away, and walked rapidly off, pushing past the few caymen-heads who still remained on the scene. Dangerfield, on the other side of the clearing, disappeared into his hut. Barney made to follow Tim, but Craig stopped him.

"Leave him," he said quietly.

Barney looked straight at his friend.

"Don't force the boy," he said. "He hasn't got your outlook to life. Just go easy on him, Craig."

"We all have to learn," Craig observed, almost sadly. Then, changing his tone, he said, "For some reason we have yet to discover, Dangerfield is unco-operative. From first impressions, he is unbalanced, which means he may soon swing the other way and offer us help: that we should wait for: I am interested to get a straight record of his nineteen years here."

"He's stubborn," Barney said, shaking his head.

"Which is the sign of a weak man. That's why Tim was unwise to coax him; it would merely make him more obdurate. If we ignore him, he will come to us. Until then, we work on our own here, studying the local life. Firstly we must establish the intelligence status of the pigmies, with a view to finding out how much opposition they will offer colonists. One or two other odd features may also prove interesting."

Thrusting his hands in his pockets, Barney surveyed the tawdry settlement. Now that it was quieter, he could hear a river flowing nearby.

All the pigmies had dispersed; some lay motionless in their crude shelters, only their snouts showing the blue light lying like a mist along their scales.

"Speaking off the cuff I'd say the pigmies are sub-human," Barney remarked, picking from his beard an insect which had tumbled out of the thatched trees above them. "I'd also hazard they have got as far, evolution wise, as they're ever going to get. They have restricted cranial development, no opposed thumb, and no form of clothing—which means the lack of any sexual inhibition, such as one would expect to find in this Y-type culture. I should rate them as Y gamma stasis, Craig, at first blush."

Craig nodded, smiling, as if with a secret pleasure.

"Which means you feel as I do about the cliff temple," he said, indicating with his grey eyes the wealth of carving visible through the trees.

"You mean—the pigmies couldn't have built it?" Barney said. Craig nodded his large head.

"The caymen-heads are far below the cultural level implied by this architecture. They are its caretakers, not its creators. Which means, of course, that there is—or was—another species, a superior species, on Kakakaxo, which may prove more elusive than the pigmies."

Craig was solid and stolid. He had spoken unemphatically. But Barney, who knew something of what went on inside that megacephalous skull, realised that by this very way Craig had of tossing away an important point, he was revealing a problem which excited his intellectual curiosity.

Understanding enough not to probe on the subject Barney filed it away for later and switched to another topic. For such a bulky specimen of manhood, he possessed surprising delicacy; but the confines of a small spaceship made a good schoolroom for the sensibilities.

"I'm just going to look at these furry pets the cayman-heads keep tied up outside their shelters," he said. "They're intriguing little creatures."

"Go carefully," Craig cautioned. "I have a suspicion the cayman-heads may not appreciate your interference. Those pets may not be pets at all; the pigmies don't look like a race of animal-lovers."

"Well, if they aren't pets, they certainly aren't cattle," Barney said, walking slowly among the crude shelters. He was careful to avoid any

protruding pigmy snouts, which lay along the ground like fallen branches. Outside most of the shelters, two different animals were tethered, generally by their hind legs. One animal, a grey, furry creature with a pushed-in face like a pekinese dog, stood almost as high as the pigmies; the other animal, a pudgy-snouted little creature with brown fur and a gay yellow crest, was half the size of the 'peke,' and resembled a miniature bear. Both pekes and bears had little black monkey-like paws, many of which were now raised as if in supplication as the ecologists approached.

"Certainly they are more attractive than their owners," Craig said. Stooping, he extended a hand cautiously to one of the little bears. It leapt forward and clutched the hand, chattering in appealing fashion.

"Do you suppose the two species, the pekes and the bears, fight together?" Barney asked. "You notice they are kept tied just far enough apart so that they can't touch each other. We may have found the local variation on cock-fighting."

"Bloodsports might be in accord with the looks of the pigmies," Craig said, "but not with the character of these creatures. Even their incisors are blunt. They have no natural weapons."

"Talking of teeth, they exist on the same diet as their masters," Barney commented.

The little animals were sitting disconsolately on decaying piles of fish bones, fish heads and scales, amid which irridiscent beetles scuttled, busy almost beneath Barney's feet.

"I'm going to try taking one of these pekes back to the overlander," he announced. "It should be well worth examining."

From the corner of his eye, he could see a pigmy snout sticking out of its shelter not three yards away; keeping it under observation, he bent down to loosen the tightly-drawn thong from the peg in the ground. The tethered creatures nearby, large and small, set up an excited chatter as they perceived what Barney was attempting. At the same time, the watching pigmy moved.

Its speed was astonishing. One second it was scarcely visible in its shelter, its nose extended along the ground; the next, it confronted Barney with its claws resting over his hand, its ferocious teeth bared in his face. Small though the reptile was, undoubtedly it could have snapped

his neck through. Its yellow eyes glared unblinkingly up at Barney.

"Don't fire, or you'll have the lot on us," Craig said, for Barney's free hand had gone immediately for his gun.

Almost at once, they found themselves surrounded by pigmies, all scuttling up and clacking excitedly. They made their typical noises by wagging their tongues without moving their jaws. Though they crowded in, apparently hostile, they made no attempt to attack Craig and Barney. Then one of them thrust forward and waving his small upper arm, commenced to harangue them.

"Some traces of a primitive speech pattern," Craig observed coolly. "Let me try a little barter for your pet, Barney, while we have their attention."

Dipping into one of the pouches of his duty equipment, he produced a necklace in whose marble-sized stones spirals of colour danced, delicate internal springs ensuring that their hues changed continually as long as their wearer moved. It was the sort of bauble to be picked up for a few minicredits on almost any civilised planet. Craig held it out to the pigmy who had delivered the speech.

The pigmy leader scrutinised it briefly, then resumed his harangue. The necklace meant nothing to him. With signs, Craig explained the function of the necklace, and indicated that he would exchange it for one of the little bears; but abundant though these animals were, their owners showed no sign of intending to part with one. Pocketing the necklace, Craig produced a mirror.

Mirrors unfailingly excite the interest of primitive tribes—yet the pigmies remained unmoved. Many of them began to disappear, speeding off with their nervous, lizard movements. Putting the mirror away, Craig brought out a whistle.

It was an elaborate toy, shaped like a silver fish with an open mouth. The pigmy leader snatched it from Craig's hand, leaving the red track of its claws across his open palm. It popped the whistle into its mouth.

"Here, that's not edible!" Craig said, instinctively stepping forward with his hand out. Without warning, the pigmy struck. Perhaps it misinterpreted Craig's gesture and acted, as it thought, in self-defence. Snapping its jaws, it lunged out at Craig's leg. The ecologist fell instantly. Hardly had he struck the ground when a blue shaft flashed from Barney's blast-gun. As the noise of the thermonuclear explosion rattled

round the clearing, the pigmy toppled over and fell flat, smoking.

Into the ensuing silence broke the terrified clatter of a thousand weaver birds, winging from their homes and circling high above the tree tops. Barney bent down, seized Craig round the shoulders, and raised him with one powerful arm, keeping the blaster levelled in his free hand. Over Craig's thigh, soaking through his torn trousers, grew a ragged patch of blood.

"Thanks, Barney," he said. "Let's get back to the overlander."

They retreated, Craig limping painfully. The pigmies made no attempt to attack. They mostly stood still, crouching over the smoking body and either staring fixedly or waving their snouts helplessly from side to side. It was impossible to determine whether they were frightened by the show of force or had decided that the brief quarrel was no affair of theirs. At last they bent over their dead comrade, seized him by his hind feet, and dragged him briskly off in the direction of the river.

When Barney got Craig onto his bunk, he stripped his trousers off, cleansed the wound, and dressed it with antiseptic and restorative powder. Although Craig had lost blood, little serious damage had been done; his leg would be entirely healed by morning.

"You got off lightly," Barney said, straightening up. "It's a deep flesh wound, but that baby could have chewed your knees off if he had been trying."

Craig sat up and accepted a mescahale.

"One thing about the incident particularly interested me," he said. "The cayman-heads wanted the whistle because they mistook it for food; fish obviously is the main item of their diet. The mirror and necklace meant nothing to them; I have never met a backward tribe so lacking in simple, elementary vanity. Does it connect with the absence of any sexual inhibitions which you mentioned?"

"What have they to be vain about?" Barney asked. "After five minutes out there, I feel as if the stench of fish has been painted on me with a brush."

Five minutes later, they realised Tim Anderson was nowhere in the overlander. Craig pursed his lips.

"Go and see if you can find him, Barney," he said. "I don't like to think of him wandering about on his own."

The afternoon was stretching the blue shadows across the ground. In the quiet, you could almost hear the planet turn on its cold, hard axis. Barney set out towards the distant murmur of water, his face anxious. He turned down a narrow track among the trees, then stopped, unsure of himself. He called Tim's name.

An answer came almost at once, unexpectedly. In a minute, Tim emerged from the bushes ahead and waved cheerfully to Barney.

"You had me worried," Barney confessed. "It's wise not to stroll off like that without telling us where you are going to."

"Only taking a preliminary look round," Tim said. "The river's just beyond these bushes, wide and deep and fast-flowing. Do you think these cayman-heads could be cold-blooded by any chance?"

"They are," Barney confirmed. "One of them put a paw on my hand, and I observed a complete lack of heat in it."

"Just as well for them," Tim remarked. "That river water is ice cold. It must flow straight down off the glaciers. The pigmies are superb swimmers, very fast, very sure; they look altogether more graceful in the water than they do on land. I watched them diving and coming up with fish the size of big salmon in their mouths."

Barney told him about the incident with the fish-whistle.

"I'm sorry about Craig's leg," Tim said. "Perhaps you can tell me why he's got his knife into me, and why he jumped at me when I went after Dangerfield?"

"He hasn't got his knife into you. When you've been on this team a little longer, Tim, you'll see that Craig Hodges doesn't work like that at all. He's a neutral man. At present he's worried because he smells a mystery, but is undecided where to turn for a key to it. He probably regards Dangerfield as that key; certainly he respects the knowledge the man must have, yet I think that inwardly he would prefer to tackle the whole problem with a clean slate, leaving Dangerfield out of it altogether."

"Why should Craig feel like that? PES H.Q. instructed us to contact Dangerfield."

"Quite. But Craig probably thinks the old boy might be—well, misleading, ill-informed . . ."

They turned and began to make their way back to the settlement,

walking slowly, enjoying the mild air uncontaminated by fish.

"Surely that wasn't why Craig was so ragged about helping Daddy Dangerfield?" Tim asked.

Barney sighed and tugged at his beard.

"No, that was something else," he said. "You develop a certain outlook to things when you've been on the PEST run for some years because a way of life induces an attitude to life. PESTeams are the precursors of change, remember. Before we come, the planets are in their natural state—that is, unspoiled or undeveloped, whichever way you phrase it. After us, they are going to be taken over and altered, on our recommendation. However cheery you feel about man's position in the galaxy, you can't help a part of you regretting that this inevitable mutilation is necessary."

"It's not our business to care," Tim said, impatiently.

"But Craig cares, Tim. The more planets we survey, the more he feels that some mysterious—divine—balance is being overthrown. I feel it myself; you'll grow to feel it in time; directly you land on an unmanned planet, an occult sense of *secrecy* comes up and hits you . . . You can't avoid the idea that you are confronting an individual entity—and your sworn duty is to destroy it, and the enigma behind it, and turn out yet another assembly-line world for assembly-line man.

"That's how Craig feels about planets and people. For him, a man's character is sacrosanct; anything that has *accumulated* has his respect. It may be simpler to work with people who are mere ciphers, but an individual is of greater ultimate value."

"So that's what he meant when he said Dangerfield was still his own self, I suppose."

"More or less," Barney agreed.

"Hm. All this business about attitudes to life seems a bit mystical to me."

"Not a bit of it!" Barney said emphatically. "It's damn practical. You take it from me, that when we've eventually taken Kakakakaxo to bits to see what makes it tick, we shall have nothing but a lot of integrated attitudes to life on our hands!"

"And a stink of fish," Tim said sceptically.

"Even a stink of fish has—" Barney began, and broke off. The silence was torn right down the middle by piercing screams. The two ecologists

looked at each other and then ran down the trail, bursting full tilt into the clearing.

Under the spreading thatch of the treetops, a peke creature was being killed. An excited rabble of pigmies milled everywhere, converging on a large, decaying tree stump, upon which two of their kind stood in full view, the screaming peke held tightly between them.

The furry prisoner struggled and squealed, while to its cries were added those of all the others tethered nearby. The screaming stopped abruptly. Without fuss, cruel talons came up and ripped its stomach open. Its entrails were then scooped, steaming, into a crudely shaped bowl, after which the ravaged body was tossed to the crowd. With delightful cries, the pigmies scrambled for it.

Before the hubbub had died down, another captive was handed up to the executioners, kicking and crying as it went. The crowd paused briefly to watch the fun. This time, the victim was one of the little bear-like animals. Its body was gouged open, its insides turned into a second bowl. It, too, was tossed to the cayman-headed throng.

"Horrible!" Tim exclaimed. "Horrible!"

"Good old Mother Nature!", Barney said angrily. "How many more of the little blighters do they intend to slaughter?"

But the killing was over. The two executioner pigmies, bearing the bowls of entrails clumsily in their paws, climbed from the tree stump and made their way through the crowd, which ceased its squabbling to fall back for them. The vessels were carried towards the rear of the village.

"It almost looks like some sort of a religious ceremony," Craig said. Barney and Tim turned to find him standing close behind them. The screaming had lured him from his bed; in the tumult, he had limped over to them unobserved.

"How's the leg?" Tim asked.

"It'll be better by morning, thanks. I can feel it beginning to heal already."

"The fellow who bit you—the one Barney killed—was thrown into the river," Tim said. "I was there watching from the bank when the other turned up with his carcass and slung him in."

"They're taking those bowls of guts into Dangerfield's hut," Barney

said, pointing across the clearing. The two cayman-headed bearers had disappeared; a minute later they emerged, empty-handed, from the hut by the cliff, and mingled with the throng.

"I wonder what the old boy wants guts for," Tim said.

"Good God! The hut's on fire!" Craig exclaimed. "Tim, run and fetch a foam extinguisher from the vehicle. Run!"

A ball of smoke, followed by a licking flame, had shown through Dangerfield's window. It died, then sprang up again. Craig and Barney ran forward as Tim dashed back to the overlander. The pigmies, some of whom were still quarrelling over the pelts of the dead peke and bear, took no notice of them or the fire as the men pelted past.

Arriving at the hut first, Barney thrust in. The interior of the first room was full of smoke. Flame crawled among the dry rushes on the floor. A crude oil lamp had been upset; lying among the flames, it was clearly the cause of the outbreak. Only a few feet away, flat on his bed, lay Dangerfield, his eyes closed.

"He's fainted—and knocked over the lamp in doing so," Craig said. Pulling a rug from the other side of the room, he flung it on to the fire and stamped on it. When Tim arrived with the extinguisher, a minute later, it was hardly needed, but they soused the smouldering ashes with it to make doubly sure.

"This might be an opportunity to talk to the old boy," Craig said. "Leave me here with him, will you, and I'll see what I can do."

As Tim and Barney obeyed, Craig saw the two bowls of entrails standing on a side table. They were still gently steaming.

On the bed, Dangerfield stirred. His eyelids flickered.

"No mercy from me," he muttered, "you'll get no mercy from me."

As Craig bent over him, his eyes opened. He lay looking up at the ecologist. Blue shadows lay like faded inkstains over the planes of his face.

"I must have passed out," he said tonelessly . . . "Felt so weak."

"You knocked over your oil lamp as you went," Craig said. "I was just in time to save rather a nasty blaze."

The old man made no comment, unless the closing of his eyes was to be interpreted as an indifference to death.

"Every afternoon they bring me the bowls of entrails," he muttered.

"It's a . . . rite—they're touchy about it. I wouldn't like to disappoint them. . . . But this afternoon it was such an effort to stand. It quite exhausted me."

Craig fetched him a mug of water. Dangerfield accepted, drinking without raising his head, allowing half the liquid to trickle across his withered cheeks. After a minute, he groaned and sat up, propping himself against the wall. Without comment, Craig produced a hypodermic from his emergency pack and filled it from a plastic phial.

"You're in pain," he said. "This will stop the pain but leave your head clear. It won't hurt you; let's have a look at your arm, can I?"

Dangerfield's eyes rested on the syringe as if fascinated. He began to shake slowly, until the rickety bed creaked.

"I don't need your help, mister," he said, his face crinkling.

"We need yours," replied Craig indifferently, swabbing the thin palsied arm. He nodded his head towards the bowls behind him. "What are these unappetising offerings? Some sort of religious tribute?"

Unexpectedly the old man began to laugh, his eyes filling with tears.

"Perhaps it's to placate me," he said. "Every day for years, for longer than I can remember, they've been bringing me these guts. You wouldn't believe me if I told you, Hodges, that one of the chief problems of my life is hiding guts, getting rid of guts. . . . You see, the pigmies must think I swallow them or something, and I don't like to disillusion them, in case I lost my power over them."

He laughed and groaned then at the same time, hiding his gaunt beaky face in his hands; the paper-thin skin on his forehead was suddenly showered with sweat. Craig steadied his arm, injected the needle deftly, and rubbed the stringy flesh afterwards.

Standing away from the bed, he said deliberately, "It's strange the way you stay here on Kakakakaxo when you fear these pigmies so much."

Daddy Dangerfield looked sharply up, a scarecrow of a man with a shock of hair and a sucked-in mouth. Staring at Craig, his eyes were suddenly very clear, as if he realised for the first time that he was confronted by someone with an awareness of his own. Something like relief crept into his expression. He made no attempt to evade Craig's statement.

"Everyone who goes into space has a good reason driving them," he said; "you don't only need escape velocity, you need a private dream—

or a private nightmare." As always he spoke in Galingua, using it stiffly and unemphatically. "Me, I could never deal with people; it's always been one of my troubles; perhaps that was one of the reasons why I was touchy when you arrived. Human beings—you never know where you stand with them. I'd rather face death with the pigmies than life with humanity. There's a confession for you, Hodges, coming from Far-Flung Father Dangerfield. . . . Maybe all heroes are just escapees, if you could see into them, right into the core of them."

The injection was taking effect. His words were coming more slowly.

". . . So I stay on here, God of the guts," he said. His laugh wrecked itself on a shoal of wheezes; clutching his chest, he lay back.

He hunched himself up in the foetal position, breathing heavily. The bed creaked, and in a moment he was asleep. Craig sat quite still, his face expressionless, integrating all he had learnt or guessed about Dangerfield, without entirely realising what he was doing. At last he shrugged, rose, and slipped the PEST harness from his shoulders; unzipping a pouch, he extracted two specimen jars. Standing them on the table, he poured the bloody contents of the mud bowls one into one jar, one into the other. He set down the bowls, stoppered up the jars, and returned them to his pack.

"That solves his worry about disposing of the tribute for today," Craig said aloud. "And now, I think, a little helminthology."

As he returned through the village, he noticed that several pigmies lay motionless on the ground, glaring unwinkingly at each other over the two lacerated heaps of fur. Circling them, he entered the overlander. It was unexpectedly good to breathe air free from fish.

"I think I've broken the ice with Dangerfield," he announced to Barney and Tim. "He's sleeping now. I'll go back over there in a couple of hours, to try and treat his 'fiffins,' and get him in a proper frame of mind for talking. Before that, let's eat; my stomach grows vociferous."

"How about exploring the temple in the cliff, Craig?" Tim asked.

Craig smiled. "If it is a temple," he said, "we'll let it keep till the morning. We don't want to upset the locals more than possible; though I admit they're a pretty phlegmatic lot, they might well take umbrage at our barging in there. And by morning I'm hoping Dangerfield will have given us more to go on."

Over the meal, Barney told Craig of two weaver birds he and Tim had snared while Craig was with Dangerfield.

"The younger one had about one thousand six hundred lice on it," he said. "Not an unusually large number for a bird living in a colony, and a youngster at that, not yet expert at preening. It goes to show that the usual complex ecological echelons are in full swing on Kaka-kakaxo."

When they had eaten, drunk some of Barney's excellent Aldebaran wine and were lingering over the coffee, Tim volunteered to go over and sit with Dangerfield.

"Excellent idea," Craig agreed, gratefully. "I'll be over to relieve you when I've done some work here. On your way, take a look at what the pigmies in the clearing are up to. And be careful—night's coming."

Collecting his kit and a torch, Tim went out. Barney returned to his birds. Craig closeted himself in the tiny lab with his jars of entrails.

Outside, curtains of night drew across the sky with sad finality. Tim zipped up his jacket. Striking through the grass a yard away from him passed a lithe serpent resembling the fer-de-lance, that deadly snake with the beautiful name. It ignored Tim. Cassivelaunus was sinking below the western horizon. Beneath the sheltering trees, darkness was already dominant; a fish scale gleamed here and there like a muddy star. The weavers were settling to roost, making a perpetual uneasy noise overhead. Kept apart by their tethers, peke and bear lay staring at each other in disconsolate pairs, indifferent to day and night. Hardly a pigmy moved; joylessly they lay beneath their crude shelters, not sleeping, not watching.

Five pigmies lay in the open. These were the ones Craig had noticed earlier. As he made his way across the clearing, Tim saw that they were waiting, two round one body, three round the other body of the two creatures who had recently been sacrificed. They crouched tensely about the two little bundles of battered fur, glaring at one another, not moving as Tim skirted them.

In Dangerfield's hut, he found the overturned oil lamp and a jar of fish oil to refill it with. He trimmed the wick and lit it. Though it gave off a reek of fish, he preferred it to the glare of his own atomic torch. Dangerfield was sleeping peacefully. Tim covered the old man with a

blanket, settling down beside him.

Over him moved a feeling of wonder, or perhaps it was what Barney had called 'the occult sense of secrecy' emanating from an unknown planet. Tim experienced it with the strange sense man still does not officially recognise; and the vast barriers of space, the glaciers of Kakakaxo, and the old hermit sleeping with a head stuffed full of untapped knowledge were all part of it. He experienced nothing of Craig's dislike of altering the nature of a planet, but suddenly he felt impatient for the morning, when they would integrate and interpret the riddles they glimpsed around them.

A succession of leathery blows sounded outside, rousing him from his reverie.

Jumping up, seizing his blaster, Tim stared out into the fishy shadows of the clearing. In the thick silence, the noises were crude and startling.

The three cayman-heads who had crouched over one of the mutilated pelts were fighting. They fought voicelessly, with terrible skill. Though they were small, they battled like giants. Their main weapons were their long jaws, which they wielded as deftly as rapiers, parrying, thrusting, slashing, biting. When their jaws became wedged together in temporary deadlock, they used their barbed paws. Each fought against the other two.

After some five minutes of this murderous activity, the three fell down again, collapsing with their faces on the ground, to eye each other motionlessly once more over the body of the sacrificed bear.

A little later, the two pigmies crouched over the dead peke rose and also did battle, a ferocious duel ending with a sudden reversion into immobility. However much any of the five pigmies suffered from any wounds they received in the engagements, they gave no sign of pain.

"They are fighting over the gutted bodies of their slaves."

Tim turned from the window. Dangerfield had roused, woken by the thumping outside. He spoke tiredly, without opening his eyes. By a quirk of the dim lighting, his eye sockets and the hollows of his cheeks looked like deep holes.

"What are they fighting for?" Tim asked, instinctively dropping his voice.

"Every night they fight in the same way."

"But *why*?"

"Tenacity . . . fight to the death. . . . Sometimes goes on all night," the old man muttered. His voice trailed off.

"What does it all mean?" Tim asked, but Dangerfield had drifted back into sleep, and the question faded unanswered into the darkness. For an hour, the old man slept undisturbedly. Then he became restless, throwing off his blanket and tearing open his shirt, although it had grown chilly in the room. Tossing on the bed, he clawed repeatedly at his chest, coughing and groaning.

Bending over him anxiously, Tim noticed a patch of discoloured skin under one of the sick man's ribs. A small, red spot was growing rapidly in size, reddening perceptibly, and lapping at the surrounding grey flesh. Dangerfield groaned and cried; Tim caught his wrist helplessly, steadying him against a crisis he could not understand. The growing patch formed a dark centre like a storm cloud. It oozed, then erupted thick blood, which trailed round the circumference of the ribs to soak into the blanket below. In the middle of the tiny, bloody crater, something moved.

A flat, armoured head appeared. It belonged to a small brown larva which now heaved itself into the light, lying exhausted on the discoloured flesh. Overcoming his disgust, Tim pulled a specimen jar from his pack and imprisoned the maggot in it.

"I don't doubt that that's what Dangerfield calls a *fiffin*," he said. He discovered his hands were shaking. Sickly, he forced himself to disinfect and dress the hermit's wound. He was still bending over the unconscious man when Craig came in to relieve him, carrying a tape recorder. He was glad to leave before he fainted.

Outside, in the darkness, the five cayman-heads still fought their intermittent, interminable battle. On every plane, Tim thought, endless, meaningless strife continues; he wanted to stop trembling.

The dead hour before the dawn; the time, on any planet in the universe, when the pulse of life falters before once more quickening its beat. Craig, walking a little stiffly, entered the overlander with the tape recorder under his arm. Setting it down, he put coffee on the hotpoint, rinsed his face with cold water, and roused the two sleepers.

"We shall be busy today," he said, patting the recorder. "We now

have plenty of material to work on—very dubious material, I might add. I have recorded a long talk with Dangerfield, which you must hear.”

“How is he?” Tim asked as he slipped on his tunic.

“Physically, not in bad shape. Mentally, pretty sick. He’s a manic-depressive type, I should say. Suddenly he is chummy and communicative, then he’s silent and hostile. An odd creature . . .”

“And the filfin?”

“Dangerfield thinks it is the laval stage of a dung beetle, and says they bore through anything. He has had them in his legs before, but this one only just missed his lungs. The pain must have been intense, poor fellow. I gave him a light hypalgesic and questioned him before its effect wore off.”

Barney brought the boiling coffee off the stove, pouring it expertly into three beakers.

“All set to hear the play-back,” he said.

Craig switched the record on. The reels turned slowly, recreating his voice and Dangerfield’s. Barney and Tim sat down to listen; Craig remained standing.

“Now that you are feeling a little better,” Craig-on-tape said, “perhaps you can give me a few details about life on Kakakakaxo. How much of the language of these so-called pigmies have you been able to pick up? And just how efficiently can they communicate with each other?”

A long silence followed before Dangerfield replied.

“They’re an old race, the pigmies,” he said at length. “Their language has gradually worn down, like an old coin. I’ve picked up all I can in twenty-odd years, but you can take it from me that most of the time, when they sound as if they’re talking, they’re just making noises. Nowadays, their language only expresses a few basic attitudes. Hostility. Fear. Hunger. Determination . . .”

“What about love?” Craig prompted.

“I never heard one of them mention the subject. . . . They’re very secretive about sex; I’ve never seen ’em doing it, and you can’t tell male from female. They just lay their eggs in the river mud. . . . What was I saying? . . . Oh yes, about their manner of speech. You’ve got to remember, Hodges, that I’m the only human—the *only* one—ever to master this clicking they do. When my first would-be rescuers asked me what the natives called this place, I said ‘kakakakaxo’, and

now Kakakakaxo it is; that's the name on the star charts and I put it there; it used only to be called Cassivelaunus 1. But I made a mistake, as I found later. 'Kakakakaxo' is the pigmy answer to the question 'Where is this place?'; it means 'where we die, where our elders died'."

"Have you been able to explain to them where you came from?"

"That's a bit difficult for them to grasp. They've settled for 'Beyond the ice'."

"Meaning the glaciers to the north and south of this equatorial belt?"

"Yes; that's why they think I'm a god, because only gods can live beyond the ice. The pigmies know all about the glaciers. I've been able to construct a bit of their history from similar little items—"

"That was one of the next things I was going to ask you about," Craig-on-tape said, as Barney-in-the-flesh handed round more coffee to the other two listeners.

"The pigmies are an ancient race," old Dangerfield said. "They've no written history, of course, but you can tell they're old by their knowing about the glaciers. How would equatorial creatures know about glaciers, unless their race survived the last Ice Age? Then this ornamented cliff in which many of them live . . . they could build nothing like that now; they haven't the skill. Their ancestors must have been really clever. These contemporary generations are just decadent."

After a brief silence, Craig's voice came sceptically from the loud-speaker: "We had an idea that the temple might have been built by another, vanished race. Any opinions on that?"

"You've got the wrong end of the stick, Hodges. The pigmies look on this temple as sacred; somewhere in the middle of it is what they refer to as 'the Tomb of the Old Kings,' and even I have never been allowed in there. They wouldn't behave like that if the place hadn't a special significance for them."

"Do they still have kings now?"

"No. They don't have any sort of rule now, except each man for himself. These five of them fighting outside the hut, for instance; there's nobody to stop them, so they'll go on until they are all dead."

"Why should they fight over the pelts?"

"It's a custom, that's all. They do it every night; sometimes one of them wins quickly, and then it's all over. They sacrifice their slaves in

the day and squabble over their bodies at night."

"Can you tell me why they attach such importance to these little animals—their slaves, as you call them? The relationship between pigmies and slaves has its puzzling aspects."

"Oh, they don't attach much importance to the slaves. It's just that they make a habit of catching them in the forest, since they regard the pekes and bears as a menace to them; certainly their numbers have increased noticeably since I've been here."

"Hm. Why do they always keep the two groups separated? Anything significant in that?"

"Why should there be? The pekes and bears are supposed to fight together if they are allowed to intermingle, but whether or not that's true, I can't say. You mustn't expect reasons for everything these pigmies do. . . . I mean, they're not rational in the way a man is."

"As an ecologist, I find there is generally a reason for everything, however obscure that reason may be."

"You do, do you?" The hermit's tone was pugnacious. "If you want a reason, you'd better go and find one. All I'm saying is that in nineteen years here, I haven't found one. These pigmies just go by—well, instinct or accident, I suppose."

Craig reached forward and switched the recorder off. He lit a mescahale and looked searchingly at Barney and Tim. Outside, beyond their heads, he could see the first light pencilling in outlines of trees.

"That's about all that's relevant," he said. "The rest of Dangerfield's remarks were mainly autobiographical."

"What do you make of it, Craig?" Barney Brangwyn asked.

"Before Dangerfield crashed on Kakakakaxo, he was a salesman, a refrigerator salesman, I believe, hopping from one frontier planet to another. He was untrained as an observer."

"That's so," Barney agreed. "You obviously feel as I do: that he has misinterpreted just about everything he has seen, which is easy enough to do on a strange planet, even if you are emotionally balanced. Nothing in his statement can be trusted; it's useless."

"I wouldn't go so far as to say that," Craig remarked, with his usual caution. "It's untrustworthy, yes, but not useless. For instance, he gives us several leads—"

"Sorry, but I'm adrift," Tim Anderson said, getting up and pacing behind his chair. "Why should Dangerfield be so wrong? Most of what he said sounded logical enough to me. Even if he had no anthropological or ecological training to begin with, he's had plenty of time to learn."

"True, Tim, true," Craig agreed. "Plenty of time to learn correctly or wrongly. I'm not trying to pass judgment on Dangerfield, but as you know there is hardly a fact in the universe which is not open, at least superficially, to two or more interpretations. Dangerfield's attitude to the pigmies is highly ambivalent, the classical love-hate relationship. He wants to think of them as mere animals, because that would make them less something to be reckoned with; at the same time, he wants to think of them as intelligent beings with a great past, because that makes their acceptance of him as their god the more impressive."

"And which are the pigmies in reality, animals or intelligent beings?" Tim asked.

Craig smiled mysteriously.

"That is where our powers of observation and deduction come in," he said.

The remark irritated Tim. Both Craig and Barney could be very uninformative. He turned to leave the overlander, to get away from them both and think things out for himself. As he went out, he remembered the jar with the fifin larva in it; he had forgotten to place it in the overlander's tiny lab. Not wishing to give Craig cause for complaint, Tim slipped it in now.

Two jars already stood on the lab bench. Tim picked them up and examined them with interest. They contained two dead tapeworms; by the lab on the jars, he saw that Craig had extracted them from the entrails of the animals sacrificed the afternoon before. The cestodes, one of which came from the peke, one from the little bear, were identical: white tapes some twenty-four inches long, with suckers and hooks at the head end. Tim stared at them with interest before leaving the overlander.

Outside, dawn was seeping through the thick trees. He drew the cold air down into his lungs; it was still flavoured with fish. The weaver birds were beginning to call or preen drowsily overhead. A few pigmies were about, moving sluggishly in the direction of the river, presuma-

bly in search of breakfast. Tim stood there, shivering slightly with the cold, thinking of the oddity of two diverse species harbouring the same species of tapeworm.

He moved into the clearing. The night-long fight over the dead animals was ended. Of the five pigmies involved, only one remained alive; it lay with the gutted bear in its jaws, unable to move away on account of its injuries. Three of its legs had been bitten off. Tim's horror and compunction dissolved as he saw the whole situation *sub specie aeternitatis*, with cruelty and kindness as mere facets of blind law, with pain and death an inevitable concomitant of life; perhaps he was acquiring something of Craig's outlook.

Possessed by a sudden inspiration, Tim picked up three of the dead pigmies, shouldered them, and, staggering slightly under their combined weight, carried them back to the overlander. At the door, he met Craig about to take some breakfast over to Dangerfield.

"Hello," Craig exclaimed cordially. "Bringing home the lunch?"

"I thought I'd do a little dissection," Tim said guardedly. "Just to see how these creatures work."

But once in the lab with his burden, he merely donned rubber gloves and slit open the pigmies' stomachs rapidly one by one, paying attention to nothing else. Removing the three intestinal sacs, he found that two of them were badly damaged by worms. Soon he had uncovered half a dozen roundworms, pink in colouration and still alive; they made vigorous attempts with their vestigial legs to climb from the crucible in which he placed them.

He went excitedly in to Barney Brangwyn to report his findings. Barney was sitting at the table, manipulating metal rods.

"This contradicts most of the laws of phylogeny," Tim said, peeling off his gloves. "According to Dangerfield, the pekes and bears are both recent arrivals on the evolutionary scene here: yet their endoparasites, which Craig has preserved in the lab, are well adapted to their environment inside the creatures, and in all respects resemble the ancient order of tapeworms parasitic in man. The roundworms from the pigmies, on the other hand, bear all the marks of being recent arrivals; they are still something more than virtual egg-factories, they still retain traces of a previous more independent existence—and they cause unnecessary

damage to their host, which is always a sign that a suitable status quo has yet to be reached between host and parasite."

Barney raised his great bushy eyebrows approvingly and smiled at the eagerness on the young man's face.

"Very interesting indeed," he said. "What now, Doctor Anderson?"

Tim grinned, struck a pose, and said, in a creditable imitation of Craig's voice, "Always meditate upon all the evidence, and especially upon those things you do not realise are evidence."

"Fair enough," Barney agreed, smiling. "And while you're meditating, come and give me a hand on the roof with this patent fishing rod I've made."

"You have some crazy ideas, Barney; what are you up to now?"

"We're going hunting. Come on! Your worms will keep."

Getting up, he produced a long, telescopic rod which Tim recognised as one of their spare, collapsible aerals. The last and smallest section was extended, and to it Barney had just finished tying a sharp knife.

"It looks like a gadget for shaving by remote control," Tim commented.

"Then appearances are deceptive. I'm still hankering after catching myself one of the local pets, without getting bitten into the bargain."

Climbing up the stepped pole which led into the tiny radio room, Barney undogged the circular observation dome which gave an all-round view of their surroundings. With Tim following closely, he swung himself up and onto the roof of the overlander. He crawled forward on hands and knees.

"Keep down," he muttered. "If possible, I'd like this act of folly to go unobserved."

Under a gigantic tree which spread its boughs over them, they were well concealed. Cassivelaunus was only just breaking through low cloud, and the clearing below was still fairly empty. Lying flat on his stomach, Barney pulled out the sections of aerial until he had a rod several yards long. Steadying this weapon with Tim's aid, he pushed it forward.

The end of it reached to the nearest pigmy shelter. Outside, the two captive animals sat up and watched with interest as the knife descended. The blade hovered over the bear, shifted, and began rubbing gently back and forth across the thong which secured the little animal. In a

moment, the thong was severed.

The bear was free. It looked owlishly about, hardly daring to move, and obviously undecided as to what it should do. It scratched its yellow poll in a parody of bewilderment. The neighbouring peke clucked encouragingly at it. At that minute, a procession of pigmies appeared among the trees some distance away, spurring it into action.

Grasping the aerial in its little black hands, the bear swarmed nimbly up it. It jumped onto the overlander roof and stood facing the men, apparently without fear. Barney retracted the aerial as Tim made coaxing noises. Unfortunately, this manoeuvre had been seen from below. A clacking and growling started as pigmies emerged from their shelters and moved towards the overlander.

The alarm had been given by the line of pigmies just emerging from the forest. They wore the look of tired hunters, returning with the dawn. Over their shoulders, trussed with crude thongs, lay freshly caught bears or pekes, defeated by their opponents' superior turn of speed. When these pigmies saw what Barney and Tim were about, they dropped their burdens and scuttled at a ferocious pace to the PEST vehicle.

Alarmed by the sudden commotion, the weavers poured from their treetop homes, screeching.

"Let's get in," Barney said hastily.

Picking up the little bear, which offered no resistance, he swarmed down inside the overlander, closely followed by Tim.

A first, the creature was overcome by its new surroundings. It stood on the table and rocked piteously from side to side. Recovering, it accepted milk and chattered to the two men vivaciously. Seen close, it bore little resemblance to a bear, except for its fur covering. It stood upright as the pigmies did, attempting to comb its bedraggled fur with its fingers. When Tim proffered his pocket comb, it used that gratefully, wrenching diligently at the knots in its long coat.

"Well, it's male, it's intelligent, it's quite a little more fetching than its overlords," commented Tim. "I hope you won't mind my saying so, Barney, but you have got what you wanted at considerable cost. The wolves are at the door, howling for our blood."

Looking through the window over Tim's shoulder, Barney saw that the pigmies, in ever-growing numbers, were surrounding the overlan-

der, waving their claws, snapping their jaws. Undoubtedly their ire was roused. They looked, in the blue light, at once repulsive, comic and malign. Barney thought to himself, 'I'm getting to hate those squalid bastards; they've neither mind nor style!'

Aloud he said, "Sorry we roused them. We seem to have offended against a local law of property, if not propriety. Until they cool down, Craig's return is blocked; he'll have to tolerate Daddy Dangerfield for a while."

Tim did not reply; before Craig returned, there was something else he wished to do. But first he had to get away from the overlander.

He stood uncertainly behind Barney's back, as the latter lit a mescahale and turned his attention again to his new pet. A moment later, Tim climbed up into the radio nest unobserved, opened the dome, and stood once more on the roof of the overlander. Catching hold of an overhanging bough, he pulled himself into the big tree; working his way along, screened from the clacking mob below, he got well away from them before dropping down from a lower branch onto clear ground. Then he walked briskly in the direction of the cliff temple.

Dangerfield switched the projector off. As the colours died, he turned eagerly to Craig Hodges.

"There!" he exclaimed, with pride. "What did you think of that?"

Craig stared at him. Though his chest was still bandaged, the hermit moved about easily. Modern healing treatments had speeded his recovery; he looked ten years younger than the old man who had yesterday suffered from fiffins. The excitement of the film he had just been showing had brought a flush to his cheeks.

"Well, what did you think of it?" he demanded, impatiently.

"I'm wondering what *you* think of it," Craig said.

Some of the animation left Dangerfield. He looked round the stuffy confines of his hut, as if seeking a weapon. His jaw set.

"You've no respect," he said. "I took you for a civilized man, Hodges. But you've no respect, no reverence; you persist in trying to insult me in underhand ways. Even the Droxy film makers recognised me for what I am."

"I think you mean for what you like to think you are," Craig said, rising from his rough seat. A heavy stick caught him an unexpected

blow on the shoulder; he seized the stick, wrenching it from Dangerfield's grasp and tossing it out of the door.

"Don't do that again," he warned.

"You insult me! You think I'm mad!" Dangerfield cried.

"I wouldn't go as far as to say that," Craig said coolly, "although I confess that your sanity is not of a type that appeals to me."

Leaving the hut, he made off briskly across the clearing. The first indication Barney had of his return was when the besieging pigmies set up an increased noise outside. Looking through one of the windows of the overlander, Barney could watch Craig approaching; he drew his gun, alert for trouble. The cayman-heads were still in an aggressive mood.

Craig never hesitated. As he drew nearer, part of the rabble detached itself from the overlander and moved towards him, jaws creaking open. Craig ignored them. Without slackening his stride, he pushed through the scaly green bodies. Barney stood rigid with apprehension; he knew that if one of the pigmies moved to the attack, Craig would be finished. The mob would be swarming over him before anyone could save him.

But the pigmies merely croaked excitedly as Craig passed. Jostling, shuffling their paws in the dirt, they let him get by. He mounted the step of the overlander and entered unmolested.

The two men faced each other, Craig reading something of the relief and admiration on Barney's face.

"They must have guessed how stringy I'd taste," he remarked; and that was all that was said.

He turned his attention to Barney's bear-creature, already christened Fido. The animal chattered perkily as Barney explained how he got it.

"I'll swear Fido has some sort of embryo language," Barney said. "In exchange for a good rub down with insecticide, he has let me examine his mouth and throat. He's well enough equipped for speech. His I'Q's in good trim, too. Fido's quite a boy."

"Show him how to use a pencil and paper, and see what he makes of it," Craig suggested, stroking the little creature's yellow crest.

As Barney did so, he asked Craig what had kept him so long with Dangerfield.

"I was beginning to think the lost race of Kakakakaxo had got you."

"Nothing so interesting," Craig said, "although it has been an instructive session. Incidentally, I think I may have made an enemy of Dangerfield; under the surface, he resents having had to accept our help. He has been showing me a film intended to impress me with the greatness of Dangerfield."

"A documentary?"

"Anything but. A squalid solid made by Galactic Studios on Droxy, and supposedly based on the old boy's life. They presented him with a copy of it, and a viewer, as a souvenir. It's called 'Curse of the Crocodile Men'."

"Ye Gods!" Barney exclaimed. "I'll bet you found that instructive."

"In many ways, it is very helpful," Craig said seriously. "The script writers and director spent two days—just two days!—here on Kaka-kaxo, talking to Dangerfield and 'soaking up atmosphere,' so-called, before returning to Droxy to cook up their own ideas on the subject. No other research was done."

Barney laughed briefly. "I presume the result was phoney through and through?"

"Absolutely false. After the usual preliminaries—spectacular spaceship crash on mountainside, etcetera—a Tarzan-like Dangerfield is shown being captured by the bear-race, who stand six feet high and wear tin helmets. The pekes, for simplicity's sake, never appear. The bears are torturing our hero to death when the Crocodile Men, the pigmies, raid the place and rescue him. The Crocodile Men, according to the film, are a proud and ancient warrior race, come down in the world through the encroachment of the jungle. When they get Dangerfield, they don't like him. They, too, are about to put him to death when he saves the leader's son from foot-rot or something equally decisive. From then on, the tribe treats him like a god, build him a palace and all the rest of it. Appalling, 'B' feature stuff, full of fake dialogue and settings."

"Hm, I see," Barney said. He sat silent for a minute, looking rather puzzledly into space, tweaking his beard. "It is odd that, considering this hokum was cooked up on Droxy, it all tallies surprisingly well in outline with what Dangerfield told you last night about the great past of the pigmies and so on."

"Exactly!" Craig agreed with satisfaction. "Don't you see what that means, Barney? Nearly everything Dangerfield knows, or believes he

knows, comes from a hack in a Droxy studio, rather than vice versa."

They stared at one another, Barney rather blankly. Into both their minds, like the faint sound of a hunter's horn, came the reflection that all human behaviour, ultimately, is inexplicable; even the explicable is a mystery.

"Now you see why he shied away from us so violently at our first meeting," Craig said. "He's got almost no first-hand information because he is afraid to go out looking for it. Knowing that, he was prepared to face Droxy film people—who would only be after a good story—but not scientists, who would want hard facts. Once I had him cornered, of course, he had to come out with what he'd got, presumably hoping we would swallow it as the truth and go."

Barney made clucking noises. "He's probably no longer fit to remember what is truth, what lies. After nineteen years alone here the old boy must be quietly crazy."

"Put the average person, with the mental conflicts to which we are all prey, away on an unlovely planet like Kakakaxo for nineteen years," Craig said, "and he will inevitably finish as some sort of fantasist. I don't say insane, for a human mind is very resilient, but shielded away from reality. Fear has worked steadily on Dangerfield all this time. He's afraid of people, afraid of the cayman-heads, the Crocodile Men. He hides from his terrors in fantasy. He's a 'B' feature god. And you couldn't budge him off the planet because he realises subconsciously that reality would then catch up with him."

Barney stood up.

"Okay, doctor," he said. "Diagnosis accepted. All we have collected so far are phantoms. Now just tell me where exactly PEST work stands after this revelation of the uselessness of our main witness. Presumably, at a standstill?"

"By no means," Craig said. He pointed to Fido. The little bear was sitting quietly on the table with the pencil in his hand, licking the point with nonchalance.

On the paper, he had crudely drawn a room, in which a bear and a peke were locked in each other's arms, as if wrestling.

A few minutes later, when Craig had gone into the laboratory with

some beetles and other insects culled from Dangerfield's hut, Barney saw the old hermit himself coming across to them, hobbling rapidly among the pigmy shelters with the aid of a stick. Barney called to Craig.

Craig emerged from the lab with a curious look on his face, at once pleased and secretive.

"Those three pigmy carcasses which Tim brought into the lab," he said. "I presume Tim cut them up—it certainly doesn't look like your work. What did he say to do about them?"

Barney explained the point Tim had made about the worms.

"Is there anything wrong?" he enquired.

"No, nothing, nothing," Craig said in an odd voice, shaking his head. "And that's all Tim said . . . Where is he now by the way?"

"I've no idea, Craig; the boy's getting as secretive as you are. He must have gone outside for a breath of fish. Shall I give him a call?"

"Let's tackle Dangerfield first," Craig said.

They opened the door. Most of the pigmies had dispersed. The rest of them sped away when Dangerfield waved to them. The old man agitatedly refused to come into the overlander, his great nose standing out from his head like a parrot's beak as he shook his head. He wagged a finger angrily at them.

"I always knew no good would come of your nosing about here," he said. "It was foolish of me to condescend to have anything to do with you in the first place. Now that young fellow of yours is being killed by the pigmies, and serve him right, too. But goodness knows what they'll do when they've tasted human flesh—tear us all apart, I shouldn't wonder. I doubt if I'll be able to stop them, for all my power over them."

He had not finished talking before Craig and Barney had leapt from the overlander.

"Where's Tim? What's happened to him?" Craig asked. "Tell us straightforwardly what you know."

"Oh, I expect it'll be too late now," said Dangerfield. "I saw him slip into the cliff temple, the interfering young fool. Perhaps you will go away now and leave me—"

But the two PEST men were already running across the clearing, scattering brilliant birds about their heads. They jumped the crude shelters in their path. As they neared the temple in the cliff, they heard the monotonous clacking of the pigmy pack. When they reached the orna-

mental doorway, they saw that it and the corridor beyond were packed tight with the creatures, all fighting to get further into the cliff.

"Tim!" bawled Barney. "Tim! Are you there?"

The clacks and croaks died instantly. The nearer pigmies turned to stare at the men, swinging their green snouts inquisitively round. In the silence, Barney shouted again, but no answer came. The mob continued its struggle to get into the temple.

"We can't massacre this lot," Craig said, glaring at the mob of cayman-heads before them. "How're we going to get in there to Tim?"

"We can use the cry gas in the overlander!" Barney said. "That will shift the pigmies." He doubled back to their vehicle, and in a minute brought it bumping and growling across the clearing towards the temple. It was tough going. The high roof ploughed through overhanging trees, breaking down the weavers' carefully constructed roof and sending angry birds flying in all directions. As the vehicle lumbered up, Craig unstrapped an outside container, pulling out a hose; the other end of it was already connected to internal gas tanks. Barney threw down two respirators, to emerge a moment later wearing one himself.

Donning his mask, Craig slung the spare over his arm and charged forward with the hose. The reeking gas poured over the nearest pigmies, who fell back like magic, coughing and pawing at their goat-yellow eyes. The two men entered the temple; they moved down the corridor unopposed, only impeded by the pigmies' wild fight to get out of their way. The noise of croaking was tremendous; in the dark and mist, Craig and Barney could hardly see their way ahead.

The corridor changed into a pigmy-sized tunnel, working gently upwards through the mountain. The two ecologists had to struggle past kicking bodies. It occurred to Craig that the pigmies, for a tribe of savages little higher than brutes, had behaved fairly phlegmatically until now. But now they were confronting cry gas; they could not comprehend it, and they were really frightened.

The supply of cry gas gave out. Craig and Barney stopped, peering at each other in surprise and some apprehension.

"I thought the gas tanks were full?" Craig said.

"They were. One of the cayman-heads must have unwittingly bitten through the hose."

"Or Dangerfield cut it . . ."

Dropping the now useless hose, they ran forward. Their retreat was cut off: the pigmies at the mouth of the temple would have recovered by now, and be waiting for the men to return. So they forged ahead, both throwing off their respirators and pulling out blaster-guns as they turned a corner.

There they stopped. This was the end of the trail. The tunnel broadened into a sort of ante-room, on the opposite side of which stood a wide wooden door. A group of pigmies who had been scratching at this door—its panels were deeply marked by their claws—turned and confronted the men. Tears, crocodile tears, stood in their eyes: a whiff of the gas had reached them, but it had served only to anger them. Six of them were there. They charged. There was no avoiding them.

"Get 'em!" Barney yelled.

The dim chamber twitched with blinding blue-white light. Blue hieroglyphs writhed on the wall. Acoustics, in the roar of the blasters, went crazy. But the best hand weapon has its limitations, and the pigmies had speed on their side. Terrifying speed. They launched themselves like stones from a sling.

Barney scarcely had time to settle one of them than another landed squarely in his stomach. For a small creature, it was unbelievably solid. Every claw dug a point of pain through Barney's thick suit. He jerked his head back, falling backwards, bellowing, as the jaws gaped up to his face. Its grey tongue, its serried teeth, the stink of fish—he tried to writhe away from them as he fired the blaster against the pigmy's leathery stomach. Even as he hit the ground, the pigmy fell from him, dead, and in a dying kick knocked the weapon from his hand.

Before Barney could reach it, two other assailants had landed on him, sending him sprawling. He was defenceless under their predatory claws.

The blue light leapt and crackled over him. An intolerable heat breathed above his cheek. The two pigmies rolled over to lie beside him, their bodies black and charred. Shakily, Barney stood up.

The wooden door had been flung open. Tim was there, holstering the blaster which had saved Barney's life.

Craig had settled with his two attackers. They lay twitching and smouldering on the floor in front of him. He stood now, breathing

deeply, with only a torn tunic sleeve to show for his trouble. The three men looked at each other, grimed and dishevelled. Craig was the first to speak.

"I'm getting too old for this sort of lark," he said.

"I thought we'd had it then; thanks a lot, Tim," Barney said.

His beard had been singed, its edges turned a dusty brown. He felt his cheek tenderly where a blister was already forming. Sweat poured from him; the heat from the thermonuclear blasts had considerably raised the temperature in the anteroom.

"Why did I ever leave Earth?" he growled, stepping over one of the scaly corpses.

"You got yourself into a nasty spot," Craig said to Tim. The young man instantly became defensive, looking both embarrassed and defiant.

"I'm sorry you came in after me," he said. "I was quite safe behind this door, as it happened. I've been doing a little research on my own, Craig—you'd better come in and see this place for yourself, now that you're here. I have discovered the Tomb of the Old Kings that Dangerfield told us about! You'll find it explains quite a lot we did not know."

"How did you manage to get as far as this without the pigmies stopping you?" Craig asked, still stern.

"There was a diversion on when I entered. Most of them were clustered round the overlander. They only started creeping up on me when I was actually inside. Are you coming in or aren't you?"

They entered, Tim barring the door behind them before turning to pick out the details of the long room with his torch beam. The proportions of the place were agreeable. Despite its low roof, it was architecturally impressive. Its builders had known what they were doing. Decoration had been left at a minimum, except for the elaborate door arch and the restrained fan-vaulting of the ceiling. Attention was thus focussed on a large catafalque, upon which lay a row of several sarcophagi. They had a pathetic, neglected look. Everywhere was deep in dust, and the air tasted stale and heavy.

Tim pointed to the line of little coffins, the outsides of which were embellished with carvings.

"Here are the remains of the Old Kings of Kakakakaxo," he said. "And although I may have made myself a nuisance, I think I can claim that I have solved the mystery of the lost race of this planet."

"Good!" Craig exclaimed encouragingly. "I should be very interested to hear any deductions you have made."

For a moment, Tim looked at him penetratingly, suspecting sarcasm. Reassured, he continued.

"The curious thing is that the problem is like a jigsaw puzzle to which we already possessed most of the pieces. Dangerfield supplied nearly all of them—but he had fitted them together upside down. You see, to start with, there is not one lost race but two. This temple—and doubtless others like it all over the planet—was hewn by the races who have engraved their own likenesses on these sarcophagi. Take a look at them! Far from being lost, these two races have been under our noses all the time: I mean, of course, the creatures we call pekes and bears. Their portraits are on the sarcophagi and their remains inside. Their resemblance to Earth animals has blinded us to what they really are."

Tim paused for their approval.

"I'm not surprised," Barney said, to Tim's regret, turning from an inspection of the stone coffins. "The bear people at least are brighter than the pigmies. As I see it, the pigmies are pretty stodgy reptiles whom nature has endowed with armour but precious little else. I had already decided that there was another thing Great God Dangerfield had garbled: far from being an ancient race, the pigmies are neoteric, upstart usurpers who have appeared only recently on the scene to oust the peke and bear people. Any knowledge of the glaciers they may have is, of course, because they drifted down from the cold regions until the river brought them to these equatorial lands. As for the bear people—and I suspect the same goes for the pekes—their chatter, far from being the beginning of a language, is the decadent tail-end of one. They're the ancient races, already in decline when the parvenu pigmies arrived."

"The helminthological evidence supports this theory," Tim said eagerly. "The cayman-heads are too recent to have developed their own peculiar cestodes; they were almost as much harmed by interior parasites, the roundworms, as was Daddy by his fifin. As you know, in a long-established host-parasite relationship, the amount of internal damage is minimal."

"As was the case with the peke and bear cestodes I uncovered," Craig agreed.

"Directly I saw these roundworms, I realised that Dangerfield's claim that the pigmies were the ancient species and their 'pets' the new might be the very reverse of the truth. I came over here at once, hoping to find proof: and here it is."

"It was a good idea, Tim," Barney said heartily, "but you shouldn't have done it alone—far too risky."

"The habit of secretiveness is catching," Tim said.

He looked challengingly at Craig, but the chief ecologist seemed not to have heard the remark, striding grimly over to the door and putting an ear to it. Barney and Tim listened too. The noise was faint at first; then it was unmistakable, a chorus of guttural grunts and croaks. The cry gas had dispersed. The pigmies were pressing back into the temple.

Almost visibly, this sound took on depth and volume. It rose to a sudden climax as claws struck the outside of the door. Craig stood back. The door shook. A babel of noise revealed that the pigmies had arrived in strength.

"This is not a very good place in which to stay," Craig said, turning back to the other two. "Is there another exit?"

Hastily, they moved down the long room. Its walls were blank. Behind them, urging them on, the wooden door rattled and groaned dangerously. At the far end, a screen stood. Behind it, two steps led up to a narrow door. When Barney tried it, it would not open. With one thrust of his great shoulders, Barney sent it shattering back. Rusted hinges and lock left a red, bitter powder floating on the air. Climbing over the door, they found themselves in a steep and narrow tunnel, so small that they were forced to go one ahead of the other.

"I should hate to be caught in here," Tim said. "Do you think the pigmies will actually dare to enter the tomb-room? They seem to regard it as sacred."

"Their blood's up. A superstition will hardly bother them," said Barney.

Still Tim hesitated.

"What I still don't understand," he said, "is why the pigmies care so much for the temple if it has nothing to do with them."

"You probably never will," Craig said. "The temple must be a symbol of their new dominance for them and one man's symbol is another man's

enigma. I can hear that door splintering; let's get up this tunnel. It looks like a sort of priest's bunk-hole—it must lead somewhere.”

One behind the other, Barney leading, they literally crawled along the shaft. It bore steadily upwards at an angle of forty-five degrees for what seemed like miles. They seemed to crawl for ever. On all sides, the mountain made its presence felt, dwarfing them, threatening them as if they were cestodes working their way up a vast alimentary canal.

The shaft at last turned upwards still more steeply. They had climbed at this new and more difficult angle for some while when Barney stopped.

“The way's blocked!” he exclaimed.

In the confined space, it sounded almost like a death sentence.

Tim shone the torch. The tunnel was neatly stoppered with a solid substance. “Rock fall!” he whispered.

“We can't use a blaster on it in this space,” Barney said, “or we'll cook or suffocate.”

Craig passed knife forward.

“Try the blockage with this,” he said, “and see what it's made of.”

The stopper flaked reluctantly as Barney scraped. They examined the flakes; Tim recognised them first.

“This is guano—probably from bats!” he exclaimed. “We must be very near the surface. Thank goodness for that!”

“It's certainly guano,” Craig agreed, “but it's almost as hard as stone with age. Look, a limestone shell has formed over the bottom of it: it must be thousands of years old. There may be many feet of guano between us and the surface.”

“Then we'll have to dig through it,” Barney said.

There was no alternative. It was an unpleasant task. The ill-smelling guano rapidly became softer as they dug, until it reached the consistency of moist cake. They rolled lumps of it back between their knees, sending it bounding back, down into the mountain. It clung stickily to them, and emphasised the parallel between their situation and a cestode in an alimentary canal. They stuck at it grimly, wishing they had kept the respirators.

Twenty-five feet of solid guano had to be tunnelled through before they struck air. Barney's head and shoulders emerged into a small cave. A wild dog-like creature backed growling into the open and ran for

safety. It had taken over this cave for a lair long after the bats had deserted it. When Barney had climbed out, the other two followed, standing blinking in the intense blue light. They were plastered with filth. Hardly uttering a word to each other, they left the cave and took great breaths of fresh air.

Trees and high bushes surrounded them. The ground sloped steeply down to the left, so they began to descend in that direction. They were high up the mountainside; *Cassivelaunus* gleamed through the leaves above them.

"Thank goodness there's nothing else to keep us any longer on Kakakaxo," Barney said at last. "We just file our report to PES HQ, and we're off. Dangerfield will be glad to see the back of us. I wonder how he'll like the colonists? They'll come flocking in in no time once HQ gets our clearance. Well, there's nothing here the biggest fool can't handle."

"Except Dangerfield," Craig added.

"The man with the permanent wrong end of the stick!" Tim said, laughing. "He will probably see out his days selling the colonists signed picture postcards of himself."

They emerged from the trees suddenly. Before them was a cliff, steep and bush-studded. The ecologists went to its edge and looked down.

A fine panorama stretched out before them. Far in the distance, perhaps fifty miles away, a range of snow covered mountains seemed to hang suspended in the blue air. Much nearer at hand, winding between mighty stretches of jungle, ran the cold, wide river. On the river banks, the ecologists could see the lumpy bodies of pigmies, basking in the sun; in the water, others swam and dived, performing miracles of agility.

"Look at them!" Craig exclaimed. "They are really aquatic creatures. They've hardly had time to adapt properly to land life. The dominating factor of their lives remains—fish!"

"And they've already forgotten all about us," Barney said.

They could see the crude settlement was deserted. The overlander was partially discernible through the trees, but it took them an hour of scrambling down hazardous paths before they reached it. Never had the sight of it been more welcome.

Craig went round to look at the severed cry gas hose. It had been

neatly chopped, as if by a knife. Obviously, this was Dangerfield's work; he had expected to trap them in the temple. There was no sign of the old man anywhere. Except for the melancholy captives, sitting at the end of their tethers, the clearing was deserted.

"Before we go, I'm setting these creatures free," Barney said.

He ran among the shelters, slashing at the thongs with a knife, liberating the pekes and the bears. As soon as they found themselves loose, they banded together and trotted off into the jungle without further ado. In a minute they were gone.

"In another two generations," Barney said regretfully, "there probably won't be a bear or a peke on Kakakaxo alive outside a zoo; the colonists will make shorter work of them than the cayman-heads have. As for the cayman-heads, I don't doubt they'll only survive by taking to the rivers again."

"There's another contradiction," Tim remarked thoughtfully, as they climbed into the overlander and Barney backed her again through the trees. "Dangerfield said the peke and bear people fought with each other if they had the chance, yet they went off peacefully enough together—and they ruled together once. Where does the fighting come in?"

"As you say, Dangerfield always managed to grab the wrong end of the stick," Craig answered. "If you take the opposite of what he told us, that's likely to be the truth. He has always been too afraid of his subjects to go out and look for the truth."

"And I suppose he just doesn't use his eyes properly," Tim remarked innocently.

"None of us do," Craig said. "Even you, Tim!"

Barney laughed.

"Here it comes," he said. "I warn you, the oracle is about to speak, Tim! In some ways you're very transparent, Craig; I've known ever since we left the Tomb of the Old Kings that you had something up your sleeve and were just waiting for an appropriate moment before you produced it."

"What is it, Craig?" Tim asked curiously.

Barney let Fido out of the overlander; the little creature hared off across the clearing with one brief backward wave, running to catch up with its fellows.

"You were careless when you opened those three pigmies in the lab,

Tim," Craig said gently. "I know that you were looking for something else, but if you had been less excited, you would have observed that the cayman-heads are parthenogenic. They have only one sex, reproducing by means of unfertilised eggs."

Just for a minute, Tim's face was a study in emotion, then he said in a small voice, "How interesting! But does this revelation make any practical difference to the situation?"

Barney had no such inhibitions. He smote his forehead in savage surprise.

"Ah, I should have seen it myself! Parthenogenic, of course! Self fertilising! It's the obvious explanation of the lack of vanity or sexual inhibition which we noticed. I swear I would have hit on the answer myself, if I hadn't been so occupied with Fido and Co."

He climbed heavily into the driver's seat, slamming the door. The air-conditioning sucked away the invading smell of fish at once.

"Yes, you have an interesting situation on Kakakakaxo," Craig continued. "Try and think how difficult it would be for such a parthenogenic species to visualize a bi-sexual species like man. The concept would probably be beyond them; it is easier for us to visualise a four-dimensional race. Nevertheless, the pigmies managed to do something of the sort—they're not so foolish as you may have thought, for all their limitations. What is more, they grasped the one fatal weakness of the bi-sexual system: that if you keep the two sexes apart, the race dies out. So without quite realising what they were doing, they did just that, separating male and female. That is how they manage to hold this place. Of course, no scheme is perfect, and quite a few of both sexes escaped into the forest to breed there."

Barney revved the engine, moving the overlander forward, leaving Tim to ask the obvious question.

"Yes," Craig said. "As Fido tried to explain to us, the 'bears' are males, the 'pekes' the females of *one* species. It just happens to be an extremely dimorphous species, the sexes varying in size and configuration, or we would have guessed the truth at once. The pigmies, in their dim way, knew. They tackled the whole business of conquest in a new way that only a parthenogenic race would think of—they segregated the sexes. That is how they managed to supercede the intellectually

superior peke-bear race: by applying the old law of 'Divide and conquer' in a new way! I'm now trying to make up my mind whether that is crueller or kinder, in the long run, than slaughter . . ."

Tim whistled.

"So when Dangerfield thought the pekes and bears were fighting," he said, "they were really making love! And of course the similar cestodes you found in their entrails would have given you the idea; I ought to have twigged it myself!"

"It must be odd to play God to a world about which you really know or care so little," Barney commented, swinging the big vehicle down the track in the direction of their spaceship.

"It must be indeed," Craig agreed, but he was not thinking of Dangerfield.

The old man hid behind a tree, silently watching the overlander leave. He shook his head sadly, braced himself, hobbled back to his hut. His servants would have to hunt in the jungles before he got today's offering of entrails. He shivered as he thought of those two symbolic and steaming bowls. He shivered for a long time. He was cold; he was old: from the sky he had come; to the sky he would one day return. But before that, he was going to tell everyone what he really thought of them.

Going to tell them how he hated them.

How he despised them.

How he needed them.

DOES YOUR NEIGHBORHOOD NEWS-STAND CARRY NEW WORLDS ?
DOES HE CARRY ANY SCIENCE FICTION MAGAZINES, FOR THAT MAT-
TER ? IF HE DOESN'T, TELL HIM (AND TELL YOUR FRIENDS) ABOUT
NEW WORLDS !



THE OUTSTRETCHED HAND

by **ARTHUR SELLINGS**

"Ah, good morning, Mr. Grant," said Dr. Meyer. "I'm glad you've come."

"Good morning," said Grant curtly, sinking indifferently into the proffered chair. "I can't honestly say I'm glad to be here!"

"That's understandable," the little psychiatrist said softly.

"But since I'm here, let's get on with it. Ask me if I was jealous of my father."

Meyer smiled. "Why should that have anything to do with your attempting suicide?"

"Nothing, nothing at all. But that's the way your sort goes to work, isn't it? Like lawyers—if you didn't complicate things there wouldn't be enough work to go round. Still, go ahead. You won't find out. I could tell you, but why should I? And there's nothing you can do for me. I'm only here because the court made me."

Meyer waited patiently for him to finish, gazing upon his patient with soft brown eyes; then he said, "Of course, Mr. Grant."

"And don't think," Grant went on, almost shouting now, "that because the court sent me I'm any charity patient. You give me your

bill when you're through, and I'll pay you."

"Thank you," said Meyer evenly. "I could do with more patients like that. But that isn't the important point. If you don't co-operate I shan't be able to get anywhere at all. On my report I shall have to write *Patient Unresponsive to Treatment*, and you, Mr. Grant, will be committed to a mental home. Not by me, but by the law, for your own safety. Is that quite clear?"

For a long moment Grant gazed at him sullenly from beneath lowered brows. Then his features seemed to waver, and he brought his hands up to cover them.

After a while he lowered his hands and said, "All right, I'm sorry. I'll play it your way. That tough guy isn't really me."

"I didn't think it was. It's called a *personna*—a mask. We all wear them."

"But fixed on permanently?" said Grant bitterly. "That's what's wrong with me, I—" He stopped. "I'm sorry. You want to ask the questions."

"No, you tell me. Get the idea out of your head that we psychiatrists want to complicate issues. Of course, it may well be that your account is a substitution for a quite different problem, but we shall see. Go ahead."

"All right. But it will show you just how false that tough guy who walked in here really is. The prosperous businessman . . . the go-getter . . . it's all wrong. Do you know what's really there? Someone who betrayed himself. Someone who wasted his life."

"But nobody's life is wasted." Meyer glanced at the folder in front of him. "Printing machinery agent? That's surely a valuable service to the community?"

"Spare me," said Grant, lifting his hand. "That sounds like too many trade dinners."

"But it's true, isn't it?"

Grant shrugged. "For those who think it is. But not when you were meant to do something really worthwhile."

"Such as?"

"Well, to be an artist, for instance."

"I see. But isn't that the inevitable consequence of taking one path—feeling sometimes that it was the wrong one?"

"I don't feel—I *know*. And this isn't just some passing feeling. It's been growing on me for years. Once I was so busy getting on in business it didn't trouble me much. But now I'm successful I get more and more time to look round at the world I've made myself. And I'm sick of it, the emptiness, the sheer bloody pointlessness of it."

Meyer nodded sympathetically. "You must have wanted very much to be an artist. What stopped you if it meant so much to you?"

Grant shrugged. "What stops a plant growing in rock? No one thing stopped me. The main thing, I suppose, was that my family was poor. Really poor, I mean, wretchedly poor. My father wasn't well equipped for work. He used to be ill often. At least, that's what he called it. The only reason he went to work was to get money to buy drink so that he could be ill again. He wasn't interested in anything but drink. He didn't understand the difference between a painting and—well, anything. It just had no meaning for him, except that it cost money for paints and things. And my mother—well, she worked too hard to have much time for anything else."

"But at school weren't you encouraged?"

"Hah! That's a good one. Did you ever go to a council school—one of the old fashioned kind that smelt of yellow soap, with overcrowded classrooms and underpaid teachers? We used to paint flowers, and chairs piled on top of each other. The teacher's idea of art was making copies. I can see him now. He was deaf, and wore big black boots, and had hairs growing out of his nose. I suppose he thought he was doing his job. But I hated him, I tried once to paint a flower as *I* saw it—as *I felt* it, and he marked me . . . one out of ten. The one was because the colour was well laid on. That was what he said when he held it up to the class, and the other kids all laughed at it."

Grant drew a hand across his eyes. It was trembling as he lowered it. "All those years ago, and it should still hurt to speak of it."

"Such things are planted deep," said the other softly.

Grant's hand made a curt gesture. "Oh, if it had only been that, it would have been easy. You find ways round. After that I used to paint the way he wanted it—but never as well as I could. You understand, I didn't want him to preach my conversion to the other kids. That would have been even worse. But at home I went on drawing and painting the way I saw it. I put my heart and soul into it. I knew I should be a

painter when I grew up. I didn't have any other thought. No dream of being an engine driver or a prize-fighter for me. I never told anybody because there was nobody to tell. But I was going to be a painter, all right."

He sighed, a sigh that seemed to echo down the silence that followed as if down all the years between.

"But I didn't. When I left school I had to go straight into a job to bring money into the house. I used to save up to buy materials for painting, but there always seemed to be something else the money had to go for. The painting got less and less. Until in the end . . . it just stopped. Oh, I don't remember regretting it at the time. I just let it drift. I was too busy struggling out of poverty. I was sick of poverty, the sight of it, the stink of it, the foul taste of it in my mouth. I told myself I could always pick up my painting later. But I never did."

"But you're only—what is it? Fifty-four. It's not too late now, is it? After all, Gauguin and Grandma Moses weren't exactly youngsters when they started."

"But you don't know. The vision's faded now, crushed out by forty years of buying and selling, of being smart, hardheaded, quicker on the deal than the next man. Oh, don't think I haven't tried. I've tried for hours, days, weeks on end. But the damage was done forty years ago. I had the gift then, the vision, and I killed it. And what makes it worse is knowing that in different circumstances I could have succeeded. But it was all in a vacuum. If I'd only had one word of encouragement, one voice to tell me that it was worthwhile—but I didn't. It's—it's not easy for a kid to keep hold of a dream when all the world that he knows says it's stupid."

"I see," Meyer said simply.

"So that's why you can't do anything about it," Grant went on bitterly. "You or anyone else. When a man's betrayed himself there's nothing he can do. To someone else you can make amends perhaps. But not to yourself. You're the murderer and victim in one body."

Dr. Meyer leaned back in his chair, looking at the ceiling, saying nothing.

"So there it is," said Grant. "If you want to make something else out of it, go ahead. But I know that's the truth. And that's why there's only

one solution—the one I tried and botched.”

Meyer brought his eyes down and back to his patient.

“I think you’re right,” he said deliberately. “On the first point, that is. Suicidal melancholia has been caused by much slighter things. But not on the second. There might be another solution. Say—say I were to give you the chance of taking the right path?”

“But I’ve already told you. It’s too late now.”

“Now, yes. But you said that all you needed was one word of encouragement. How would you like to go back and give yourself that word?”

Grant gaped at him. “Look, if that’s a new kind of shock treatment you can forget it.”

“No, I mean it.”

“But that’s not psychiatry. It’s—*time travelling!*”

“Exactly.”

“But that’s fantastic.”

“No, I assure you. I can send you back to yourself in your youth.”

“Where’s the time-machine?” Grant said, looking round mockingly.

“Do you need a machine to get from today into tomorrow? Your time line is your own experience. You make it. You can retrace it. I can give you that power by narcosis.”

“Drugs?”

The psychiatrist nodded.

“But how could I alter the past? I couldn’t go back bodily just by the action of drugs. So how could I alter anything?”

Meyer smiled. “Surely you, Mr. Grant, will recognise that the world is more than bodily, than material. You once tried to paint a reality that was more than one of appearances. And time is both more and less than real—super-real, in fact. Can you deny the reality of memories because there is no way of measuring them physically? Or your hopes and fears of tomorrow? If yesterday is only a dream now, what was it yesterday? But I couldn’t start to explain it all; it would take far too long. Besides, I don’t understand it properly myself. All I ask is that you believe me.”

Grant looked into the steady gaze of the psychiatrist, his fear of being mocked dissolving into sudden hope, then into fear again—a different kind of fear.

“But I know the contradictions in that. I remember once reading an

article about the paradoxes involved in any kind of time-travelling. If I went back and changed my course, then I wouldn't have come to you in the first place. So I wouldn't have gone back. So—repeat and repeat. It's a circle."

"Not at all. You *have* come to me. If you go back you will merely be making a loop back over ground you've already travelled. If you are successful your changed path will go on from there. This meeting will have happened on the path that you retraced, not on the one you will take from then on."

"But—you mean that I, I as I am, will come back here? That I shall have two selves? One who came here and one who had no need to?"

"No, you as you are will become you as you are to be. There is only one you—as an entity, that is. Except when, directed, you contact your younger self. But even in ordinary progression through time we have the power to change our lives."

"But—but if I went back and changed my own direction, wouldn't that change everything else? Slightly, perhaps, but the consequences might be enormous."

The psychiatrist spoke almost as if to himself. "We think we're so important. We each think the universe stands or falls by our actions."

"For want of a nail—"

Meyer smiled. "Don't worry about it. I don't think any battles will be lost or won—except your own."

Grant suddenly laughed nervously. "But it all seems so fantastic. If this succeeds, that means you will never see me again. That means that I won't be around to pay your fee. Maybe I shall be living on the other side of the world, even. Isn't that so?"

The doctor laughed. "In that case you'd better pay me now."

Grant drew out his chequebook and bent it open. Then he stopped. "But—this other me probably won't have an account at the same bank. Or will he? Hell, this is confusing."

"I was only joking. I think we'll let the fee take care of itself. Frankly, the therapy is new and the chance to use it is its own reward. You may have gathered by now that the court's placing you under my care was not entirely accidental. Anyway, I gather you're willing?"

Grant looked down and laughed wryly. "I suppose that means I am. The complete businessman, you see. His chequebook's his bible."

"Good. Just get on the couch, will you, and pull up your sleeve."

Yes, it was just as he had remembered it. The school was exactly the same. It looked rather smaller now than it had then, but that was only natural, wasn't it?

He lingered by the little shop that faced the entrance. The window was filled as it always had been with cheap and gaudy sweets. He looked at his watch. It was twenty-five past four, five minutes before school came out. On a sudden impulse he ducked into the shop.

Yes, it was old—what was his name?—Haggerty, just as he remembered him. This was no illusion. This was *real*. He had asked for a quarter of rock before an alarming thought occurred to him. Mr. Haggerty held the bag out, looking slightly puzzled as his customer spread his small change in his hand, scrutinising each coin. Grant breathed out with relief as he found a coin old enough to be legal tender. *For the want of a nail*, he found himself thinking as he took the sweet-stuffed bag. The sudden thought he'd had—that most of the money in his pocket hadn't been minted yet—brought the fantastic nature of what he was doing into sharp and soul-shaking focus.

Yet it was working! He popped a piece of the rock into his mouth as he came out of the shop. The strong sickly taste was real enough. He wondered now how he could ever have thought the stuff worth eating.

And then school came out, noisy and tumbling. Grant stepped out of the path of the avalanche and waited in the shadow of the school wall.

The young Jimmy Grant came out towards the end of the crowd, walking on his own. It was like somebody stepping out of a dream. The elder Grant realised with a shock of surprise that he wouldn't have recognised himself had he not been deliberately searching. *This* kid he would have passed on the street and never known it was himself. Even now, it was chiefly the brilliant green jersey his younger self was wearing which told him that he was right. It had come in a parcel from a charity organisation. The memory of how he had hated to wear it came out of this past, this present.

Grant stepped forward. "I say."

The boy turned. "Yes?"

Grant suddenly felt very shy. "Er—can I walk along with you?"

The boy looked at him suspiciously. Grant swore silently at himself

for the clumsiness of his approach. Kids were warned not to speak to strange men. His mother had warned *him*, this boy who turned now and walked down the street that Grant remembered so well, this man who paced after him and walked along by his side.

"It's all right," he said, striving to control his nervousness. "Here, would you like a sweet?"

The boy looked at the proffered bag, and temptation was too great. He'd never been able to afford sweets very often.

"Thanks," the boy said. "Oh, these are my favourites."

"I know," said Grant, and bit his tongue as the boy looked at him oddly. "I mean, they're my favourites, too. Take the whole bag."

"But if you like them—"

"That's all right. I can get some more."

By the time they reached the corner of his street, Grant had brought the boy out about his painting. He had to prompt him, asking about his hobbies, suggesting in the end that perhaps he painted.

"How did you guess that?" said the boy, eyes round with surprise.

"Oh," said Grant, feeling suddenly ashamed, as if he had just been caught cheating. "Well, you look as if you might. You look the sort of boy who'd do something creative like that." He told himself desperately that this wasn't cheating, but the reverse—the correcting of an injustice.

"Are *you* a painter?" the boy said excitedly.

"No," he said, his words sounding like a voice coming from a great distance. "I always wanted to be, but I never did."

"Why didn't you?"

"Because—because I thought other things were more important. But nothing's more important, nothing in the whole world, you understand. Even though it may be hard, even though people laugh at you."

"You really think that?" the look in the boy's eyes of delight and gratitude made Grant turn away abruptly.

"Is—is something the matter?"

"No, it's nothing," said Grant, turning his face back to the boy. "I'd like to see some of your work. Will you show me?"

The boy flushed. "Oh, it's not real painting. Not yet, I mean."

"Well, you're only young yet. But you will let me see it, won't you?"

"My father's home. He doesn't like strangers."

"Bring some of your paintings out to me, then. I'll wait here."

"All right," said the boy.

He came out a couple of minutes later with a sheaf of papers under his arm. Grant took them with a hand that he couldn't stop from trembling. These paintings, his own precious attempts at self-expression, had long since been laid aside, forgotten, destroyed. And now—

He opened one out. "Oh," he said.

The boy looked up at him, sudden disappointment tugging at the corners of his mouth.

"Oh," said Grant again, altering the tone. He rifled through the others. They weren't nearly as good as he'd remembered them. But wasn't that inevitable—the contrast between memory and reality? They weren't bad for a kid of twelve, were they?

"Don't you like them?" said the boy anxiously.

"Why, yes. I think they're excellent," Grant was conscious again, even more keenly, of a feeling of guilt. He thrust it aside. "You must keep on. You have talent."

At that moment a voice came from a window above—a familiar voice. It was familiar face which looked down at the pair of them. Grant looked up into the face of his long-dead father. The boy looked up, too, apprehensively.

"What you doing down there?" the father called roughly.

"Just—I'm coming right up." The boy turned away from Grant.

The father gave one narrow-eyed look at Grant and withdrew his head from the window.

"Goodbye," said the boy. "I have to go."

"All right," said Grant. Then with sudden urgency, "But remember what I told you. You must go on painting. You *must*! I'm only—only travelling through. I won't be passing this way again. So promise you'll go on. *Promise?*"

"I promise," said the boy. "Cross my heart." As he passed into the darkness of the tenement hallway he turned and said, "Thank you for the sweets." And then he was gone.

Grant stood looking at the hallway for a moment, then turned away. He walked out of the street, out of the past, into the darkness of futurity . . .

He looked up into the soft brown eyes of Dr. Meyer. It took him

some seconds to orientate himself. Then—

"But I shouldn't be *here*," he said wildly, sitting up on the couch. "It *was* a trick!"

"Didn't you go back, then?"

"Ye-es. No. Hell, I don't know. I seemed to. But it didn't work. I'm just the same as I was before."

"Are you sure?"

Grant shook his head confusedly.

"Your memory," said Dr. Meyer. "Look back in your memory."

"Wait a minute," Grant breathed. "Yes, that's right. It's strange. It's like looking at something from two angles at once. One angle is clear because it just happened, the one in which I met a kid coming out of school. The other is a memory from forty years ago, the memory of being stopped by a stranger. A stranger who offered me sweets. Both memories are there." He trembled. "It's eerie."

"That shows it was no trick, I hope."

"Maybe. I don't know. Look, it might easily have been something different. Some drugged state in which I was just talking to myself in a dream, somehow burying that other memory deep down. It seemed real, but—"

He stopped suddenly. He ran his tongue over his lips, and he could still taste it lingering there, a sickly sweet taste.

"Yes?"

"I don't know. Maybe you're right. But why haven't I changed? Apart from that memory in my mind I'm the same as I always was. I seem to feel that a few details are different. But nothing important. They can't be, otherwise I wouldn't be here."

"I had a patient once," said Dr. Meyer. "He suffered from a persecution complex. He complained that he was a frustrated genius."

"What the hell has that got to do with me?"

The doctor smiled. "I told him there was no such thing. No man can say 'I am a frustrated genius.' A genius could say, 'I was once frustrated,' but that's all. It's the nature of genius that it can't be frustrated."

"But I still don't see what that—" Grant stopped. "You mean that even with that encouragement I didn't have it in me?" He met Meyer's eyes and sagged. "Yes, I remember now. I remember how bucked I

was with that stranger telling me to go on. And I promised him I would. Promised *myself*." He clutched the psychiatrist's sleeve. "But I *must* do it. Can't you send me back again?"

"I could. But—do you think now that it would really be any use?"

Grant hesitated, framing his lips to speak. He shrugged, then shook his head dumbly.

"We wouldn't change the universe so much," the psychiatrist said quietly, "even with a second chance. Now do you see? One still makes the same mistakes, takes the same wrong turnings. But they're not mistakes. And they're not wrong turnings. They're each the only ones we *could* take."

Grant jerked up his head. "But that makes us no better than monkeys on strings. It means we have no free will. Yet you yourself said we have the power to change our lives."

"We *do* have the power. Within the limits imposed upon us by our own natures—and the limits we impose upon ourselves. If we can transcend those limits we *did* transcend them."

"Ye—es, I believe I see that." Grant rose unsteadily to his feet.

"How do you feel?" Meyer asked him.

"Sick. Sick and sorry." But he smiled wryly as he said it. "The funny thing is—I don't feel as I did. I feel—I don't know—as if a burden's been taken off me. Yet, when I came in here, I only believed I'd failed myself. Now I *know*. Because I promised myself. In actual fact promised myself. That ought to make it worse, surely. Yet I feel better."

Dr. Meyer put his hand on Grant's shoulder. "You played out your guilt, that's all. You thought you had promised yourself. You felt guilty because you had failed. You know now that it was an impossible promise to keep, anyway."

Grant suddenly laughed. "You knew that. That's why you weren't worried about the fee. You knew I'd come back just the same."

Dr. Meyer looked at him with a twinkle in his eye. "Yes, I knew. As I told you, it's a new therapy. But you weren't the first."

"It was the same with the others, then?"

The psychiatrist chuckled now. "There's only been one other so far. But it was exactly the same. You see, there was once a boy who dreamed of becoming a concert pianist.

"He became a psychiatrist."

CAVE PAINTING

by **GEORGE CHAILEY**

Imagine that you are crawling through a tunnel deep under the earth, pushing an acetylene lamp before you. It is cold and damp and your lamp smells. Then you come to a cave where the waters of an underground lake lie still and sombre, and stalactites hang from the ceiling. You raise your lamp and see, on the bare rock walls and roof, finely executed paintings of bison and reindeer in red and black.

The style is monumental, the forms simple, the colour brilliant. Excitement and wonder grip you, for these paintings were made from ten to twenty thousand years ago, by your remote ancestors, and they are the earliest works of Man to survive to the present time.

In some place, the pictures are as fresh as the day they were painted, because the caves have been hermetically sealed by falls of rock. Thus no flow of air has disturbed the paint and the temperature has remained constant since prehistory.

Another factor in preserving these remarkable pictures is *dampness*, which is more usually associated with the destruction of works of art. Over the centuries, mineral springs have formed a new deposit of lime over the pigment, protecting it like a glaze. This action is known as "sintering."

The first decorated caves were discovered at Altamira, Spain, in 1879, and you will almost certainly have seen reproductions of the bison from these walls. Since then, many examples of pre-historic art have been found in France and Spain.

The purpose of these paintings, hidden away in the bowels of the earth, is *not* mere decoration, but essentially religious; they are part of magical rites connected with fertility and hunting. The men who made them did not think of themselves as "artists," but rather as sorcerers.

The animals portrayed by our ancestors include horses, mammoths, ibex and aurochs. Quite often these animals are marked with vee-shaped arrows, and the stylized human forms represent hunters. Little attempt is made at composition, each animal or group of animals apparently being drawn for its own significance.

How were these striking paintings created?

The cave selected would be far back from the living quarters and probably only the initiates would ever see the finished work. The artist-magicians worked under difficult conditions, in narrow galleries and on high ledges. They had no light except that thrown by guttering oil lamps—stone dishes filled with fat and a crude wick. If you are ever lucky enough to go to Lascaux and see the pictures there by electric light, you can be sure that you have a better view of them than did their original creators.

The visual memory of these early painters for the form and movement of animals is of a high order, and due directly to the fact that their existence depended on hunting the subjects of their pictures; of necessity, they used their eyes to see much more intently than we do today.

These primitive artists worked direct on the bare rock surface. An outline was drawn with wood charcoal, or engraved with a flint; for deeper engraving they used a pick with a quartz head.

The colour range is light yellow through red to dark brown and black, obtained from the ochres and manganese earths. No blues or greens are found. It is likely that colour was used symbolically, red for life and black for death.

Various techniques are used for applying the pigment to the cave wall. In some cases, colour in the form of naturally occurring lumps

is used, as pastels are today; sharpened sticks of pigment have been discovered just as some early painter left them.

Or the pigments might be ground to a fine powder in a hollow stone and mixed with vegetable juices, animal fat, or blood. As a viscous paste, it was applied with the fingers, or a brush fashioned from hair or feathers and stuck to a piece of wood or bone by fat. Large areas could have been covered by using a pad of fur.

As a liquid, the paint might be applied by blowing through a reed or hollow cylindrical bone held in the mouth. Powdered pigment was also used with a blow-tube. At Castillo, in Spain, are a series of stencilled impressions of left hands made by using this method, and often, the hands are mutilated, suggesting sacrificial rites.

Sometimes, too, the actual surface of the rock is exploited, and the pose of a bison may be determined by protuberances from the wall which form the head and forequarters of the animal.

At Les Trois Freres, in France, there is a large cave where one entire wall is covered from top to bottom with engravings, including one of a dancing wizard. This figure has a human body, the head of a stag and the tail of a horse, and strongly suggests what a preview of a prehistoric "art show" must have looked like—a gloomy cave, smoking oil lamps, the initiates dancing round and performing their rites, an invocation for a good "kill" by the hunters.

It is not unusual for one painting to be superimposed on another, as if the artist had discovered a particularly good site; perhaps the magic made here brought better luck than that made elsewhere.

Some of the paintings are masterpieces of art—by present day standards—and the cave at Altamira, where a polychrome prize extends for forty-five feet and includes twenty-five life-sized animals, has been compared to the Sistine Chapel.

It may be instructive to draw a parallel with artists of our own time, who perform a similar magic in advertising; an attempt to hypnotize a reluctant quarry!

FANNOTATIONS

by **BELLE C. DIETZ**

It may be that some of my readers who have never heard of amateur science fiction fan magazines may be a bit wary of sending their hard-earned cash to an unknown fan editor. Fear not. Particularly if you only send enough money for sample issues at the outset. It is true that some fanzines are rather esoteric; some speak almost exclusively in what may appear to the newcomer to be a foreign language and some of the artwork may not be as meaningful as it would be to those in the "know." However, once a few fanzines have been perused, a taste for them develops; the meanings can be figured out or you can always write to the editor and ask questions. Your letter, if well written, may even be published in that fanzine's letter column. Or, to be a bit metaphoric, come on in, y'all, the water's really fine, there are no insurmountable waves and you can learn to swim in short order. Look, I'll even supply water wings. . . .

HYPHEN #23 (Walt Willis, 170 Upper Newtownards Rd., Belfast, N. Ireland) is a fanzine with a wonderful reputation for humor and one highly deserved. This issue is dedicated to one of its regular contributors, Bob Shaw, and features his own explanation of What Happened To Him In America, as well as the usual marvellous column by A. Vin Clarke and the editor's own additives. A highly adult-rated fanzine with a beautifully edited letter column and 29 back cover re-quotable

quotes, this represents the pinnacle of amateur publication, to this reviewer, at least. Priceless but try 25¢.

ALTISSIMO CATAMOUNT, Summer 1959 (John Bowles, 802 S. 33rd St., Louisville, Ky.) costs 25¢ and represents a drop from the sublime to the ridiculous. Consisting mostly of fan-written fiction, inane interlineations and gory little filler paragraphs, the only thing to recommend it is its reproduction. The cover was very well done but artwork is almost non-existent in the interior. A saving grace might have been the letter column but that was miniscule. The one article of more than passing interest made a brief comparative analysis of the Russian and American educational systems but it was too obviously a freshman school paper. There is much room for improvement in this publication.

DWE REVOLUTION (John Konig, 318 South Belle Vista, Youngstown 9, Ohio) is a one-shot which was sold at the Detroit SF World Convention last September. In the main, it is a John Berry appreciation issue (John was the fan guest of honor at the con, brought over from N. Ireland on funds donated by fans) and does Berry quite a bit of credit. Most enjoyed were the articles by Len Moffatt and Steve Schultheis. Reproduction-wise, this was beautiful; the interlineations were nicely chosen and the whole well rounded with a long, juicy letter column. There's no price on this but I imagine if you send the editor 25¢ and a pleading letter, you might obtain a copy.

PITTCON PROGRESS REPORT #1 (Pittcon, c/o Dirce S. Archer, 1453 Barnsdale St., Pittsburgh 17, Pa.) gives information on the 18th World Science Fiction Convention, to be held this coming September 3, 4 and 5 at the Penn-Sheraton Hotel in Pittsburgh. To become a member of the con, entitled to attend as well as to receive all the Progress Reports and the Program Booklet, send \$2 to Mrs. Archer. This PR is photo-offset and contains a variety of interesting ads as well as a good write-up on James Blish, the guest of honor. You're missing something if you don't join the Pittcon.

TWIG #17 (Guy E. Terwilleger, 1412 Albright St., Boise, Idaho) is a very colorful fanzine and a pleasant change from the monotony

of black and white mimeoed publications. Clearly dittoed, imaginative use is made of the various ditto carbon colors obtainable, making all the artwork (and especially the cover) delightful to behold. The issue marks the beginning of the editor's fourth year of amateur publishing and contains some excellent material; the best being a piece on pro sf by Gregg Calkins (discussing the recent sf magazine "boom", its effects and his feelings on current status), a succinct article by Jim Caughran debunking "focal points", and a convention report of the last Westercon done by the editor. For 20¢ each, 5 for \$1, you get a lot for your money.

SMOKE #2 (George Locke, 85 Chelsea Gardens, Chelsea Bridge Rd., London SW 1, Eng.) This second issue from a new fan editor carries out fully the promise shown in his first. Available for 15¢ each (scotch-tape the coins to a piece of cardboard and put in an envelope; American money is quite welcome to the British fan editors) or if you have them, 20,000 Galactical Credits, this is a thick zine (50 pages) with excellent contents. From the editorial (Lock Jaw) to the letter column (Fire) it holds interest, skipping of course this writer's convention report. Best of the issue were Vin Clark's column "Eggplant", an article entitled "Myself When Young" by Harry Warner Jr., and one called "The Worshippers" by Sid Birchby. A very good letter column helped heighten my opinion and I unreservedly urge you to send for it.

FEMIZINE, Autumn 1959 issue (Ethel Lindsay, Courage House, 6 Langley Ave., Surbiton, Surrey, Eng.) is exactly what its title implies: An all female fanzine. With the able assistance of Joy Clarke, this fanzine is acquiring a very polished appearance, some excellent artwork and fascinating contents. If any male reader finds it hard to believe that gurrlls could be interested in sf, why Femizine's the thing to convince you. This starts off with an excellent cover, very well drawn to suit the method of reproduction—mimeograph—and leads you gently into the depths with "Ethel's Editorial Excursive". There are three introductory write-ups of femme-fans (sorry, boys, these are married), several well written columns and a general evenness and smoothness to the entire issue. I zipped through the pages, including the prettily edited letter column (the only place men are allowed) and ended with a happy

feeling. No price is quoted, but try flashing a quarter in the editress' face and see what that gets you. *I* say you'll fall for Femizine.

SATA #11 (Bill Pearson, 4516 E. Glenrose Ave., Phoenix, Arizona). This issue is one long sf comic strip, beautifully drawn and gorgeously reproduced by photo-offset. A really unusual magazine and very much worth obtaining (and collecting) at 27¢ each or 4 for 99¢.

APORRHETA #15 (Sandy Sanderson, "Inchmery", 236 Queen's Rd., London SE 14, Eng.) is its usual excellent chubby self, stuffed full of good things. It starts off by making you go out and buy a magnifying glass (the contents page is in micro-elite type) but reverts to normal quickly, offering for your perusal such diversified items as an appreciation of duckdom by John Berry, an extrapolation on what you could call that glowing dot remaining when you turn off the TV by Dean Grennell and what's wrong with science fiction by Andy Young, etc. The letter column, in the form of a diary, is one of the best continuing features of any fan magazine. Send two dimes for a copy of this; I predict immediate and permanent addiction. Sandy is a candidate in the current Trans-Atlantic Fan Fund election and I have voted for him. By the time you read this it may be too late to vote but anyone wishing to contribute to bring Sandy to the Pittcon as fan guest of honor can send it to me c/o Great American, 270 Madison Ave., N.Y.C., N.Y.

AN EDITORIAL ASIDE

The annual rush to bury Science Fiction is on once more—led, this time, by Kingsley Amis (more about that gentleman's rather curious NEW MAPS OF HELL next month) and encouraged, of course, by the *temporary* thinning of the ranks of the SF magazines, due to a variety of factors.

At the same time as there is this rather less than edifying scramble for the role of Anthony, trade and paperback houses have become increasingly interested in the field. Simon and Schuster's decision to publish, this fall, Judith Merril's latest anthology—Bantam's and New American's increased interest in the field—and Prentice-Hall's publication of THE FANTASTIC UNIVERSE OMNIBUS (P-H, \$3.95), available, incidentally, autographed by the editor, if you order from Mrs. Belle C. Dietz, c/o this magazine (profits from these sales go to the *Lunarians*), is all proof positive of a trend which should be welcomed.

HANS STEFAN SANTESSON



I LIKE YOU

by **GEORGE LONGDON**

Fragmented metal peeled away from the hole the meteorite had made and the spherical ship spun from the angular force of the impact. A round door began to open, and an object moved itself from inside the ruined vessel, flattening to escape the biting pull of the tenuous atmosphere through which the sphere flashed. As the slipstream became too powerful, the object detached itself, falling separately towards banks of clouds below. As it fell its shape changed until it was a large, parachute-shaped disc descending at comfortable speed.

Cloud enveloped it, thinned slowly, and was left overhead. Water glistened below, a wide river that came through a smoke-hazed town and emptied into the sea several miles away. The parachute expanded again, slowing its descent, and glided to the water surface, collapsing and drawing together into a compact, elongated pear. It reached the river bed, resting there while it slowly regained its natural form. A head appeared, with a single eye. The being's mind reached out, exploring its surroundings. it touched the minds of dark, lowly things which swam nearby, primitive and only dimly conscious. But farther away was a clear, keen mind that stood like a burning candle against a

background of shadow. The *mimos* felt new hope. Temporarily it withdrew its circle of awareness, touching again the creatures living in the medium it now occupied, noting how they moved. Then it slowly changed form. Its head grew pointed, fins appeared. Its skin glinted with scales, and purposeless gills began to open and close. It lifted from the river bed, swimming easily towards the distant bank, where the bright mind stood like a beacon. As it came nearer the surface sun touched pink and gold to its spotted sides.

Terry reeled in his line and put his flies away. It had been a rotten day, he thought. A hard morning's work at the garage, with old Bentley grumbling his head off, the tiff with Jean so that she had not come with him fishing, the broken contact arm spring in his motor cycle, delaying him an hour, then no catch.

He scattered the remains of the picnic that was to have been for two into the water, then walked from the riverside trees back to his motor cycle, stowing his tackle. He was about to kick the machine into life when he realised he had forgotten his cap, thrown off while fishing. Grumbling to himself, he turned back towards the river.

A man stood under the trees, half in dappled shadow. Terry gave him a cursory glance, decided he looked a bit unprepossessing, and bent to search amid the long grass.

His cap was half under a low bush. He put it on, straightening, and found himself looking into the man's face. Seen closely, the features were oddly repulsive—soft and flabby, not sharply formed, or having character. Yet under the softness lay the sketchy outline of a face Terry knew. His own. An unpleasant feeling ran through him.

"I—I don't think I know you," he said uneasily.

The face was like a poorly formed wax copy. Two eyes equally as grey as his own stared at Terry, yet lacked the motivating spark of intelligence. They could have been glass eyes—mobile, yet not possessing vision.

The other frowned, mimicing him. "You will know me," a voice said. "I like you."

Terry instinctively withdrew. The lips had moved, but the words had not seemed to fit the motion. The voice, too, was oddly elemental, as yet without the resonance of men. Terry could only stare at him.

"You—like me?"

"Very much. We always—ah, stick to those we like. I shall be with you a lot—always."

Terry blinked his eyes and shook his head, wondering if the hot summer sun brightly reflected from the river had given him heat stroke. He screwed up his eyes tightly, but when he opened them the other was still there. In the brief interval some of the soft formlessness had disappeared. The face was less like a melted wax copy; more like Terry himself.

The other looked at the sky, moving as if tracing the path of something across the heavens.

"I shall be staying with you now. I don't mind, though. I think I shall be happy. I like you."

Terry experienced overwhelming exasperation. "The hell you do! And what if I don't like *you*?"

"That will make no difference. We are used to that. But I expect you will like me in the end. You will grow accustomed to me."

"I'm damned if I will!" Terry declared. He jammed his cap tightly on his head and stretched to his full six feet two. Work at the garage had given him burly arms. "I'm going home! If I find you following me, you'll get *this*!"

He stuck a brown, hard clenched fist under the other's nose, then swung on a heel and started off back across the riverside field. Damn silly trick, he thought. Some joker who looked like him talking like that!

When he reached the gate the other had caught up with him and got over it behind him. Terry turned, furious.

"Didn't I say b—— off!"

The other did not reply, but seemed to be studying the motor cycle with interest. Terry caught his shoulder, spinning him round.

"This is the last time of telling! Clear out!"

The other shook his head. "You do not understand. We never—clear out, as you put it. I like you. We shall be very happy together. I shall like being with you."

"You won't have the chance!" Terry said fiercely, and hit.

His fist sank into the face so like his own, emerged, leaving a de-

pression. Within seconds the depression was gone, reforming into an image of himself.

"You will become accustomed to the idea," the smooth voice said.

Terry hit him again, with a sobbing gasp, shocked, half terrified by the strangeness of it. The face came back again, and seemed to have gained character. He could almost have been staring into a mirror, Terry thought. He drew back towards his machine, fingers instinctively curling around the twistgrip. He wondered if he could start, jump on, and leave this caricature of himself behind.

"No." The other moved towards the machine. "You won't succeed. I don't want you to leave me. I like you. When you go, I'm coming too."

Terry felt cornered. He showed his teeth. "What if I won't take you?"

"You will." Fingers closed on his arm, tightening. For a terrible moment Terry thought that the grip was going to become so intense that it crushed muscle and bone. The hand was transferred to the pillion. "I'm sure this machine is intended to carry two. If not, we'll both walk."

Terry felt that he had had enough. Clear thought was becoming impossible. Actions had developed the inevitability of a nightmare.

"It carries two," he said dully.

"Good. We will go home."

The impossibility of it all struck Terry again, stirring him. "Do you think it's as easy as that? What will Mrs. Spears, my landlady, say?" He took a deep breath. "I'll tell the police! I won't have you around—"

"You'll have me." The hand came momentarily on Terry's arm, but did not close. "I like you, and I'm sure you'll like to do things for me, later. And look at me, carefully."

Terry looked, and his heart grew cold. The soft waxiness had gone. The image was complete. His own rather tightly compressed lips, the twitch near one corner of his mouth, the eyes, the dark, unevenly matched brows. All were there. A tiny scratch near one temple, got untangling his line. Terry's gaze slowly travelled downwards. The open-necked shirt, the brown tanned throat. The flannels, his best because Jean had been coming too. Everything.

The eyes like his own met his gaze. "You see? It would be difficult. Usually, you will find it best that we be happy together. I like you, and

we should get on well."

Terry realised that he was panting. "Who—what—are you?"

There was a moment's silence. "I—I am you, now. That is how we like it to be."

"But—but before you were me?"

"Oh. A fish. Yes, a fish with spots."

A trout, Terry thought. He licked his lips. "Before that?"

"A Chevian. They are tough. And Chevians are good space travellers."

Terry felt he was losing touch with reality. "B-before that?"

"A Juttisti, I believe. I almost forget. Why, yes. It was a Juttisti, I recall."

Terry caught at a straw. "You change—often—"

"Only when I don't like things. I like you. And I know I shall keep on liking you. I rather liked the Juttisti. But he killed, and was to be drowned as punishment. The Chevian was only temporary, because I had a Chevian ship. But now I'm happy. I can see *you* won't ever kill anyone."

"No," Terry said flatly, "I don't suppose I shall."

He started the motor cycle and got on. Smiling secretly to itself, the *mimos* occupied the pillion, its feet on the opened rests.

In the next twenty four hours Terry began to adjust to the situation, while not accepting it. Mrs. Spears had a vacant room, and marvelled at the likeness when Terry explained that the newcomer was a cousin. Before breakfast on the Sunday, Terry's bedroom door opened and the replica of himself, now differently clad, came in.

"I'd hoped it was a nightmare," Terry said nastily.

The *mimos* sat on the bed. "I noticed all your kind don't dress the same. I've modified my appearance to avoid attracting attention."

Terry studied him. He appeared to be a normal, healthy and somewhat hefty young man. In short, himself. Terry put on his shirt.

"And how long does this continue?" he asked.

"Until you die." The *mimos* smiled. "I like you as I said. We usually stick, when we like anybody."

Terry fixed his tie with deadly calm. "You mean you'll be hanging around all my life?"

"I expect so."

Terry compressed his lips, remembering it was Sunday. "You've overlooked I'd murder you first!"

"Not a bit," the *mimos* disagreed evenly. "The people we like and stick to often try. But they seldom succeed."

Terry grunted. They'd see! Now, he already hated this copy of himself more than anything in the world. In some strange way it seemed to suck away his joy in life, as if a great sponge unable to experience things for itself, and therefore latching on to some other being.

"You're a parasite," he said thinly.

The *mimos* did not try to deny it. "Millions of years elapsed before you reached your present state of evolution. It's the same with other normal creatures in the galaxies. We've bypassed all that. And we've some measure of free choice, which you've not. We're what we want to be. And I like you, and the things you do. They're interesting."

The door was open. Terry swung round, caught his visitor, heaved him by sheer muscle through the doorway, and slammed and locked the door.

"At least I can get rid of you sometimes!" he yelled through the crack.

Feeling better, he continued to dress. He had his back to the door, and was brushing his hair before the mirror, when a queer rustling noise began. It made his skin creep. He put down the brush, steeling his nerves, and turned slowly.

A large mound of mixed appearance was forming just inside the door. A thin stream of the stuff was coming through the quarter inch space between door and floor, mounting up into the mound. Before his eyes it took on form, was tall as a man, but shapeless, then shaped like a melting wax figure. Then was again complete.

"We usually stick with folk we like," the *mimos* said.

Terry glared at it, panting. "Don't you see you'll drive me round the bend—"

"Not quite. Not so long as I like you. You'll have your time off, when you're doing things which aren't very interesting. Working, perhaps. If I was with you *always* it would arouse comment."

"I see," Terry breathed, momentarily defeated.

It seemed impossible to say more. He finished dressing, went down, and ate his breakfast, not speaking, and not looking at the thing that shadowed him. The *mimos* seemed to enjoy bacon and egg.

"I'm cultivating your tastes," it said amicably as it finished. "I like you."

Terry flashed it a glance of burning hatred.

As time passed Terry found that the *mimos* had its own system for getting what it wanted. While he worked it lazed, read, and visited the cinema. He refused to give it money, but found that it had touched old Bentley for a week's wages in advance. Apparently Bentley had not even suspected the impersonation.

The middle of the week Terry was working on a blocked petrol pump when a golden head came into view over the vehicle bonnet. He almost dropped a spanner.

"Jean!"

She smiled, showing neat white teeth. "Thought it a bit silly to go on quarrelling, Terry. I don't really hate fishing enough to stay away because you think it goes with a picnic."

He looked sheepish. "I was the one who was wrong, Jean. I simply hadn't thought about it that way."

She touched his arm fleetingly and the smile he loved to see spread over her oval face. "It was as much my fault as yours." She paused. "I believe you mentioned a ride down to the shore some day soon."

Terry could not remember it, but smiled. "Of course. This evening?"

She nodded. "Now I'll be off before Mr. Bentley sees me. About seven at the usual place?"

Waving, she vanished. Terry felt elated, and made a mental note that fishing and picnics must henceforth be separate items.

The remainder of the afternoon passed rapidly. As he worked he planned the evening. Jean should have no cause for complaint.

When he emerged from the garage a familiar form fell into step beside him. With a shock of blended hatred and despair Terry realised he had almost forgotten.

"Who was the young female human?" the *mimos* asked, interested.

Terry set his teeth and jaw dangerously. "That's my business!"

"It'll be mine, too."

"I'll be damned first!" Terry snapped, and halted. His fingers closed on the other's arm. For an instant it was as if he gripped something very flabby, then an iron-like strength came into being under his fingers.

"The Chevians were twice as strong as humans," the *mimos* stated quietly. "But I killed two, once—unarmed."

Terry loosed his grip. "That's as it may be. But one thing we've got to get straight. When I go out with Jean you stay away! Got that?"

The face like his own smiled. "Actually, I don't think I shall stay away. It should be interesting to come. And I like you. We stick."

"But the motor cycle will only carry two!" Terry snapped. "Me, driving, and a pillion!"

"Then we'll go on a bus, or take a taxi."

Frustrated, Terry let it pass. Something more than mere talk would soon become necessary, he decided.

He ate, changed, and slipped down to the shed where he kept the machine. A 600 c.c. twin, it was without both sparking plugs. He was searching for spares, and not finding them, when the shed door creaked.

"Looking for these?"

The *mimos* leaned against the door, holding up two plugs and a spare pair in cartons. Terry swore, decided to fight it out, realised he would lose, and conceded victory.

"I'll have old Bentley's spare hire-and-drive car."

The evening was one of the most miserable that Terry could recall. Jean was dressed for pillion riding when he picked her up, and gave him an icy look when he introduced his cousin. They rode in almost silence, Jean sitting alone in the back. Terry tried to open conversation with her, but the attempt fell on stony ground.

The three of them walked along the sands side by side. Evening wind carried in the rising tide and gulls followed them, mewing.

"How nice it all is," the *mimos* offered as they sat on a stone jetty. "I like Terry."

Terry observed that in some way his unwanted companion had made himself the centre of the three, as they sat down. He was now smiling sweetly at Jean, ignoring Terry.

"He's one of the best, is Terry. I like being with him."

Jean flashed Terry a glance that wounded him. "He gets by." Her

gaze settled on the *mimos*. "I never knew he had a cousin. How long shall you be around?"

"Oh, a long time. I'd not thought of going."

Terry ground his nails into the stone. "My cousin doesn't have to work for his living," he said with bitter sarcasm.

The *mimos* nodded. "That's true. That's why I stay with Terry."

The conversation lapsed. Terry flung pebbles into the sea. An evening less like that he had planned would be impossible. He wondered if he could take Jean into his confidence. The time did not seem opportune. The *mimos* would deny it, and he'd make himself look ridiculous. Jean would think him crazy, supposing he merely wanted to discredit his cousin.

The homeward ride was uncomfortable because of its silence. Jean got out, bid them both a cool goodnight, and was gone before Terry could stop her. He jabbed the car engine into life.

"A very interesting young female human," the *mimos* said pensively. "I like your taste, Terry. We shall be seeing a lot of her, I expect."

Terry did not trust himself to answer.

As the days passed, Terry knew that something must be done. A visit to the police would probably result in kind officers phoning for an ambulance while he was restrained for his own good. Telling Jean outright would be too much of a shock for her. He might have written, trying to explain, but he was not much good at letters.

The *mimos* hung about, attached to him as a parasite is attached to its host, though by invisible ties. From the way it acted, Terry guessed it could understand, at least partially, what were his unvoiced thoughts. But when it was away, perhaps lolling at an afternoon performance in the local cinema, while he worked, he had the impression that its mental contact with him was tenuous.

He was adjusting the carburettor setting on his motor cycle, during a slack period, when the idea came. Could even the *mimos* survive if plastered at 90 miles per hour against the concrete and steel fencing above the cliffs, and was from there catapulted into the sea?

When the idea came Terry knew that he must keep it secret. He must not even think of the plan while the *mimos* was near. And if he were not to give himself away, the attempt must be made soon.

He studied a road map. He had rode along the cliffs so often each section came back. There was a long stretch culminating in a slow climb towards the cliffs, then a sudden turn, with gorse on his left but the sea ahead. His only chance would be the gorse. Bruises in plenty, perhaps broken limbs, were better than a lifetime with his unwanted hanger-on. He wondered if he should try to explain to Jean, but decided against it. He had no more compunction about wiping out the *mimos* than about swatting a mosquito, Terry thought.

Familiar steps joined his when he turned the corner away from the garage. Terry ignored the other's greeting, and they walked side by side the short distance to their lodgings. Terry refused to let his mind dwell on his plan.

"I'm going sea fishing tonight," he said when he had finished Mrs. Spears' excellent tea. His appetite had almost returned. "You had better not come."

The *mimos* spread jam thickly. "On the contrary, of course I shall come. Though I may say no one I liked ever got away from me. The Juttisti were singularly fast runners."

Terry watched the slice disappear. "So that's one reason why you always keep so close. You're afraid I'll give you the slip."

"Not really." The *mimos* wiped his mouth. "It's practically impossible to do that. I've never heard of it happening. There were nearly a thousand of us with Juttisti we liked, and none ever got away."

Like a caught fish, Terry thought. When hook and line were good the fish did not get away.

He got out his tackle, prepared sea lines, stowed fresh bait, and stalked off to fetch his motor cycle from the garage. The *mimos* followed him, apparently quite content. As he opened the garage door Bentley had left unfastened Terry turned, infuriated.

"Don't you get tired of *being hated*?" he demanded.

The *mimos* smiled. "Not a bit. I rather like it. The people and beings we like usually hate us. It's natural. The last Chevian would have clawed out his own throat with his own front toes if that would have harmed me."

"Then I'd have wished him luck!" Terry snorted.

He got out the twin, strapped his rod parallel with the carrier, and

started the engine. The *mimos* slid on to the pillion, folding his toes half round the rests. Terry pulled his goggles down and took the bike out into the road, and through the town.

As the built-up area slid behind, he gave the engine plenty of throttle. It helped to relieve his tension, left less chance that some thought would betray him, and would make the final burst of speed less obvious.

The motor cycle ran well, exhaust note thundering back at him when he sped past isolated houses. On a few short, straight stretches he took her up to 70, the wind a tornado in his ears. He knew she would do 110 easily, with two up, but had his own neck to think of. Two shattered corpses in the game would be no fun.

He threaded through a village. The road opened, and began to rise. There was a dip, a bend, and then the long, slow climb towards the coast. A mile or more of it, he thought. On nearly full throttle the machine was touching 90, and he let her hum at that.

The roadsides were vari-coloured streaks. He could see the gorse ahead, to his left; could see the rails like the bars of a great potato slicer. He opened the throttle to its stop, rose, and jumped.

The impact was terrible. Gorse ripped through leather, coat, shirt and flesh. Going head over heels, he saw the twin strike the rails, the *mimos* still clinging to the pillion. The rails seemed to cut machine and pillion passenger into three sections, which blended in horrible confusion as they shot from view. Then Terry landed again, less violently, and came to rest amid thick gorse.

He got up, shaking, astonished that he could move. A thumb was disjointed. Otherwise he seemed virtually unharmed.

Walking unsteadily to the crumpled rails, he looked over. Far below heavy seas boiled over jagged rocks. Both machine and passenger had vanished.

It was late when he got back to town. He tidied himself as best he could, and went to call on Jean. He felt happier than he had since the *mimos* had appeared, blighting his life.

He saw the look in Jean's eyes. "Only a bit of a skid," he said. "I—I think I was angry with myself, and things, because it was so long since I last saw you."

Her eyes softened. "I was a bit sick of that cousin hanging round, Terry."

"So was I." He massaged his hand. It was not the first time he had a minor dislocation, or jerked it back in for himself, swearing. "There's something I want to talk to you about. And something I want to ask you. I've been thinking of it a long time, but never got round to it." He finished lamely, but she smiled. The look encouraged him. "Suppose we go in and talk, Jean? Your mom won't mind."

They went into the room Jean called the lounge. Terry felt bruised all over, but happy.

"I didn't want my cousin hanging around like that," he explained. "But he was a bit difficult to get rid of. He's got no other ties, you know. And he liked me."

She nodded, not really listening. "What was it you wanted to talk over with me, Terry?"

He sat down heavily near her. "You know I've been at old Bentley's a good many years, Jean. Though I say it myself, he thinks a lot of me. From what he's said, I think I could pull off a partnership."

She smiled, nodding, her eyes pellucid. "That would be wonderful, Terry. Go on."

He took her hand, stroking it, thinking how soft and smooth the skin was. Corse had left red weals across his palm.

"There'd be plenty for two to live on, Jean, if we were fairly careful . . ."

He paused, licking his lips, aware that a dim, curious rustling had begun. The sound made his skin creep. Hair rose on his neck, primitive fear blending with overwhelming hate. A mass of curiously viscid substance was gathering inside the door, mounting upwards as it flowed through the narrow space between door and carpet. Jean was sitting so that she could not see it, and he froze, not wanting her to look.

"Go on, Terry, dear," she murmured.

He sought for words, found none, and watched the mass pile up and up. It was tall as a man. A dribbling, waxy image. Then a clear-cut figure, complete in every detail. Unharméd.

"Hello." Its voice was smooth.

Jean turned half in her seat, hand flying to her mouth. Her face paled.

"I—I thought you had gone away!"

"No." The *mimos* stepped forward into the room. "We never go

away. Why should I? I like Terry."

Terry's nails bit into his palms. His limbs shook, and fury hammered in his mind.

"I like staying with Terry," the *mimos* said. "He plays tricks, but I'll be watching for them. I like you lots, don't I Terry?"

The *mimos* smiled. Oh! you bloody devil! Terry thought. Back, unharmed, after all that. Indestructible as living protoplasm that could be cut in two, then re-form.

"Yes, I like Terry," the smooth voice said.

Terry put his head on his scarred hands and wept.

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NW 05

MANHOLE

69

by J. G. BALLARD

For the first few days it was fairly easy.

"Keep away from windows and don't think about it," Dr. Neill told them. "As far as you're concerned it was just another compulsion. At 11-30 or 12-0 go down to the gym and throw a ball around, play some table tennis. At 2-0 they're running a movie for you in the Neuro theatre. Read the papers for a couple of hours, put on some records. I'll be down at 6-0 and tap off those amino-residues. By 7-0 you'll be in a manic swing."

"Any chance of a sudden black-out, Doctor?" Avery asked.

"Absolutely none," Neill said. "If you get tired, rest of course. That's the one thing you'll probably have a little difficulty getting used to. Remember, you're still burning off only 3,500 calories, so your kinetic level—and you'll notice this most by day—will be about a third lower. You'll have to take things easier, make allowances. Most of these have been programmed in for you, but start learning to play chess, focus that inner eye."

Gorrell leaned forward. "Doctor," he asked, "if we want to, can we look out of the windows?"

Dr. Neill smiled. "Don't worry," he said. "The wires are cut. You couldn't go to sleep now if you tried."

Neill waited until the three men had left the lecture room on their way back to the Recreation Wing and then stepped down from the dias and shut the door. He was a short, broad-shouldered man in his fifties, with a powerful neck and hard, small features. He swung a chair out of the front row and straddled it deftly.

"Well?" he asked.

Morley was sitting on one of the desks against the back wall, legs up, playing aimlessly with a pencil. At thirty he was the youngest member of the team working under Neill at the Clinic, but he'd noticed that Neill liked to talk to him.

He saw Neill was waiting for an answer and shrugged.

"Everything seems to be going O.K.," he said. "Surgical convalescence is over and all the servos are working smoothly. Body chemistry, cardiac rhythms, EEG, completely normal. I saw the X-rays this morning and the archoid ridges have sealed beautifully.

Neill watched him quizzically. "You don't sound as if you really approve."

Morley laughed and stood up. "Of course I do." He walked down the aisle between the desks, white coat unbuttoned, hands sunk deep in his pockets. "No, so far you've vindicated yourself on every point. The party's only just beginning, but the guests are in damn good shape. No doubt about it. I thought three weeks was a little early to bring them out of hypnosis, but you'll probably be right there as well. Tonight is the first one they take on their own. Let's see how they are tomorrow morning."

"What are you secretly expecting?" Neill asked wryly. "Massive feedback from the medulla?"

"No," Morley said. "There again the psychometric tests have shown absolutely nothing coming up at all. Not a single trauma." He stared at the blackboard and then looked round at Neill. "Yes, as a cautious estimate I'd say you've succeeded."

Neill leaned forward on his elbows, flexed his jaw muscles. "I think I've more than succeeded. Blocking those medullary synapses has eliminated a lot of material I thought would still be there—the minor quirks

and complexes, petty aggressive phobias, the small change in the psychic bank. Most of them have gone, or at least they don't show in the tests. However, they're the side targets, and thanks to you, John, and to everyone else in the team, we have a bull on the main one."

Morley murmured something, but Neill ran on in his clipped, rapid voice. "None of you realize it yet, but this is as big an advance as the step the first ichthypod took out of the protozoic sea 300 million years ago. At last we've freed the mind, raised it out of that archaic sump called sleep, its nightly retreat into the medulla. With virtually one cut of the scalpel we've added twenty years to those men's lives."

"I only hope they know what to do with them," Morley commented sombrely.

"Come, John," Neill snapped back. "That's not an argument. What they do with the time is their responsibility anyway. They'll make the most of it, just as we've always made the most, eventually, of any opportunity given us. It's too early to think about it yet, but visualise the universal application of our technique. For the first time Man will be living a full twenty-four hour day, not spending a third of it as an invalid, snoring his way through an eight-hour peep-show of infantile erotica."

Tired, Neill broke off and rubbed his eyes. "What's worrying you?" he asked, glancing up at Morley.

Morley made a small, helpless gesture with one hand. "I'm not sure, it's just that I . . ." He played with the big red plastic brain mounted on a stand next to the blackboard. Reflected in one of the frontal whorls was a distorted image of Neill, with a twisted chinless face and vast domed cranium. Sitting alone among the desks in the empty lecture room he looked like an insane genius patiently waiting to take an examination no one could set him.

Morley spun the model with his finger, watched the image blur and dissolve.

"I know all you've done is close off a few of the loops in the hypothalamus, and I realize the results are going to be spectacular. You'll probably precipitate the greatest social and economic revolution since the Fall. But for some reason I can't get that story of Chekov's out of my mind—the one about the man who accepts a million-rouble bet that he

can't shut himself up alone for ten years. He tries to, nothing goes wrong, but one minute before the time's up he deliberately steps out of his room. Of course, he's insane."

"So?"

"I don't know. I've been thinking about it all week, but I can't see where the tie-up is."

Neill let out a light snort. "I suppose you're trying to say that sleep is some sort of communal activity and that these three men are now isolated, exiled from the group unconscious, the dark oceanic dream. Is that it?"

"Maybe."

"Nonsense, John. The further we dyke back the unconscious the better. Reclaim some of the marsh-land. Physiologically sleep is nothing more than an inconvenient symptom of cerebral anoxaemia. It's not that you're afraid of missing, it's the dream. You want to hold on to your front-row seat at the peep-show."

"No," Morley said mildly. "What I really mean is that for better or worse Lang, Gorrell and Avery are now stuck with themselves. For the duration. They're never going to be able to get away, not even for a couple of minutes, let alone eight hours. How much of yourself can you stand? Maybe you need eight hours off a day just to get over the shock of being yourself. Remember, you and I aren't always going to be around, feeding them with tests and movies. What will happen if they get fed up with themselves?"

"They won't," Neill said. He stood up, suddenly bored by Morley's questions. "The total tempo of their lives will be lower than ours, these stresses and tensions won't begin to crystallise. We'll soon seem like a lot of manic-depressives to them, running round like dervishes half the day, then collapsing into a stupor the other half."

He moved towards the door, reached out to the lightswitch. "Well, I'm just about at the bottom of my curve. See you at 6-0."

They left the lecture room and started down the corridor together.

"What are you doing now?" Morley asked.

Neill grinned ruefully. "What do you think?" he said. "I'm going to go and get myself a good night's sleep."

A little after midnight Avery and Gorrell were playing table-tennis

in the flood-lit gym. They were competent players, and passed the ball backwards and forwards with a minimum of effort. Both felt strong and alert; Avery was sweating slightly, but this was due to the long banks of arc-lights blazing down from the rood—maintaining, for safety's sake, an illusion of continuous day—rather than to any excessive exertion of his own. Tall and detached, with a lean, closed face, he made no attempt to talk to Gorrell and concentrated on adjusting himself to the period ahead. He knew he would find no trace of fatigue, but as he played he carefully checked his respiratory rhythms and muscle tonus, and kept one eye closely on the clock, scoring off the quarter-hour intervals.

Gorrell, usually a relaxed, amiable cycloid, was also subdued. Between strokes he glanced cautiously round the gym, noting the high-hangar like walls, the broad, polished floor, the shuttered sky-lights in the roof. Now and then, without realizing it, he fingered the circular trepan scar between his mastoid bones at the back of his head.

Out in the centre of the gym a couple of armchairs and a sofa had been drawn up round a radiogram, and here Lang was playing chess with Morley, doing his section of night duty. He hunched forwards over the chess-board, wiryhaired and aggressive, with a small, sharp nose and mouth, watching the pieces closely. He had played regularly against Morley since he arrived at the Clinic four months earlier, and the two were almost equally matched, with perhaps a slight edge to Morley. But tonight Lang had opened with a new attack and after ten moves had completed his development and begun to split Morley's defence. His mind felt clear and precise, focused sharply on the game in front of him with no penumbral fall-off, though only that morning had he finally left the cloudy limbo of post-hypnosis through which he and the two others had drifted for three weeks like lobotomised phantoms.

Behind him, along one wall of the gym, were the offices housing the control unit, and looking over his shoulder he saw a face peering at him through the small circular observation window in one of the doors. Here, at constant alert, a group of orderlies and internes lounged around waiting by their emergency trollies. (The end door, into a small ward containing three cots, was kept carefully locked). After a few moments the face withdrew, and Lang smiled at the elaborate machinery guarding over him. His transference onto Neill had been positive and

he had absolute faith in the success of the experiment. Neill had assured him that, at worst, the sudden accumulation of metabolites in his bloodstream might induce a mild torpor, but his brain would be unimpaired.

"Nerve fibre, Robert," Neill had told him time and time again, "never fatigues. The mind cannot tire."

While he waited for Morley to move he checked the time from the clock mounted against the wall. 12-20. Morley yawned, neck muscles bunching under his drawn grey skin. He looked tired, drab. He slumped down into the armchair, face in one hand. Lang reflected how frail and primitive those who slept would soon seem, their minds sinking off each evening under the load of accumulating toxins, the edge of their awareness worn and frayed. Suddenly he realised that at that very moment Neill himself was asleep. A curiously disconcerting vision of Neill, huddled in a rumpled bed two floors above, his blood-sugar low, metabolism sluggish, mind drifting, rose before him.

Lang laughed at his own conceit, and Morley retrieved the rook he had just moved.

"I must be going blind. What am I doing?"

"No," Lang said. He started to laugh again. "I've just discovered I'm awake."

Morley grinned. "We'll have to put that down as one of the sayings of the week." He replaced the rook, sat up and looked across at the table-tennis pair. Gorrell had swiped a fast backhand low over the net and Avery was trotting to the rear of the gym after the ball.

"They seem to be O.K. How about you?"

"Right on top of myself," Lang said. His eyes flicked quickly up and down the board and he moved before Morley caught his breath back.

Usually they went right through into the end-game, but tonight Morley had to concede on the twentieth move.

"Good," he said encouragingly. "You'll be able to take on Neill soon. Like another?"

"No. Actually the game bores me a little. I can see that's going to be a problem."

"You'll face it. You're not swimming now, you're walking. Give yourself time to find your legs."

Lang pulled one of the Bach albums out of its rack in the gram

cabinet. He put a Brandenburg Concerto on the turntable and lowered the sapphire. As the rich, contrapuntal patterns chimed out he tapped a foot and jiggled up and down in his seat.

Morley thought: Crazy. How fast can you run? Three weeks ago you were strictly a hep-cat.

The next few hours passed rapidly.

At 1-30 they left the gym and went to the Surgery Lab, where Morley and one of the internes gave them a quick physical, checking their renal clearances, heart-rate and reflexes.

Dressed again, they went into the cafeteria for a snack, sat on the stools, arguing what to call this new fifth meal. Avery suggested 'Mid-food,' Morley 'Munch.'

At 2-0 they took their places in the Neurology theatre, spent a couple of hours watching films of the hypno-drills of the back three weeks.

When the programme ended they started down for the gym, the night-drag almost over. They were still relaxed and cheerful; Gorrell led the way, playfully ribbing Lang over some of the episodes in the films, mimicking his trance-like walk.

"Eyes shut, mouth open," he demonstrated, swerving into Lang, who jumped nimbly out of his way. "Look at you, you're doing it even now. Believe me, Lang, you're not awake, you're damn well sonambulating." He called back to Morley. "Agreed, Doctor?"

Morley swallowed a yawn and grinned. "Well, if he is, that makes two of us." He followed them along the corridor, doing his best to stay awake, feeling as if he, and not the three men in front of him, had been without sleep for the last three weeks.

Then, as they turned into the stairway leading down to the gym, something happened that snapped him back to full consciousness and gave him his first jolting glimpse of danger.

Though the Clinic was asleep, at Neill's orders all lights along the corridors and down the stairway had been left on. Ahead of them two orderlies checked that windows they passed were safely screened and doors shut. Nowhere was there a single darkened alcove or shadow-trap.

Neill had insisted on this, reluctantly acknowledging a possible reflex association between darkness and sleep: "Let's admit it. In all but a few organisms the association *is* strong enough to be a reflex. The higher

mammals depend for their survival on a highly acute sensory apparatus, combined with a varying ability to store and classify information. Plunge them into darkness, and cut off the flow of visual data to the cortex, and they're paralysed. Sleep is a defence reflex. It lowers the metabolic rate, conserves energy, increases the organism's survival-potential by merging it into its habitat . . ."

On the landing half-way down the staircase was a wide, shuttered window that by day opened out onto the parkscape behind the Clinic. As he passed it Gorrell suddenly stopped. He went over, released the blind, then unlatched the shutter.

Still holding it closed he turned to Morley, watching from the flight above.

"Tabu, Doctor?" he asked.

Morley hesitated, looked at each of the three men in turn. Gorrell was calm and unperturbed, apparently satisfying nothing more sinister than an idle whim. Lang squatted on the rail, watching curiously, with an expression of clinical disinterest. Only Avery seemed slightly anxious, his thin face wan and pinched. Morley had an irrelevant thought: 5 a.m. shadow—they'll need to shave twice a day. Then: why isn't Neill here? He knew they'd make for a window as soon as they got the chance.

He noticed Gorrell giving him an oblique, amused smile and shrugged, trying to disguise his uneasiness.

"Go ahead, if you want to. As Neill said, the wires are cut."

Gorrell threw back the shutter, and they clustered round the window and stared out into the night. Below pewter-grey lawns stretched toward the pines and low hills in the distance. A couple of miles away on their left a neon sign slowly winked and becked.

Neither Gorrell nor Lang noticed any reaction, and their interest began to flag within a few moments. Avery felt a sudden lift under the heart, quickly controlled himself. His eyes began to sift the darkness; the sky was clear and cloudless, and through the stars he picked out the narrow, milky traverse of the galactic rim. He watched it silently, letting the cool wind fan the sweat off his face and neck.

Morley stepped over to the window, leaned his elbows on the sill next to Avery. Out of the corner of his eye he carefully waited for any

motor tremor—a fluttering eyelid, accelerated breathing—that would signal a reflex discharging. He remembered Neill's warning: "In Man sleep is largely volitional, and the reflex is conditioned by habit. But just because we've cut out the hypothalamic loops regulating the flow of consciousness doesn't mean the reflex won't discharge down some other pathway. That's where we could easily run into trouble. However, sooner or later we'll have to take the risk and give them a glimpse of the dark side of the sun."

Morley was musing on this when he felt something nudge his shoulder.

"Doctor," he heard Lang say. "Doctor Morley."

He pulled himself together with a start, saw that he was alone at the window. Gorrell and Avery were half-way down the next flight of stairs.

"What's up?" Morley asked quickly.

"Nothing," Lang assured him. "We're just going back to the gym." He looked closely at Morley. "You O.K.?"

Morley rubbed his face. "God," he said with a laugh. "I must have been asleep." He glanced at his watch. 4-20. They'd been at the window for over fifteen minutes. All he could remember was leaning on the sill. "And I was worried about it knocking *you* out."

Everybody was amused, Gorrell particularly.

"You'd better watch that reflex, Doctor," he drawled. "If you're interested I can recommend you to a good narcotomist."

After 5-0 they all felt a gradual ebb of tonus from their arm and leg muscles. Renal clearances were falling and breakdown products were slowly clogging their tissues. Their palms felt damp and numb, the soles of their feet like pads of sponge rubber. The sensation was vaguely unsettling, for it was allied to no feelings of mental fatigue. Gorrell and Lang tried walking round the gym, finally gave up and sat down.

The numbness spread. Avery noticed it stretching the skin over his cheekbones, pulling at his temples, giving him a slight frontal migraine. He doggedly turned the pages of a magazine, his hands like lumps of putty, watching the clock edge round to 6-0.

Then Neill came down, and they began to revive. Neill looked fresh and spruce, bouncing on the tips of his toes.

"How's the night shift going?" he asked briskly, walking round each one of them in turn, smiling as he sized them up. "Feel all right?"

"Not too bad, Doctor," Gorrell told him. "Just a slight case of insomnia."

Neill roared, slapped him on the shoulder and led the way up to the Surgery lab.

At 9-0, shaved, showered and in fresh clothes, they assembled in the lecture room. They felt cool and alert again. The peripheral numbness and slight head torpor had gone as soon as the detoxication drips had been plugged in, and Neill told them that within a week their kidneys would have enlarged sufficiently to cope on their own.

All morning and most of the afternoon they worked on a series of IQ, associative and performance tests; Neill kept them hard at it, steering swerving blips of light around a cathode screen, juggling with intricate numerical and geometric sequences, elaborating word-chains.

He seemed more than satisfied with the results.

"Shorter access times, deeper memory traces," he pointed out to Morley when the three men had gone off at 5-0 for the rest period. "Barrels of prime psychic marrow." He gestured at the test-cards spread out across the desk in his office. "And you were worried about the Unconscious. Look at those Rorshachs of Lang's. Believe me, John, I'll soon have him reminiscing about his foetal experiences."

Morley nodded, his first doubts fading.

Over the next two weeks either he or Neill was with the men continuously, sitting out under the floodlights in the centre of the gym, assessing their assimilation of the eight extra hours, carefully watching for any symptoms of withdrawal. Neill carried everyone along, from one programme phase to the next, through the test periods, across the long, slow hours of the interminable nights, his powerful egodynamic injecting enthusiasm into every member of the unit.

Privately, Morley worried about the increasing emotional overlay apparent in the relationship between Neill and the three men. He was afraid they were becoming conditioned to identify Neill with the experiment. (Ring the meal-bell and the subject salivates; but suddenly stop ringing the bell after a long period of conditioning and it temporarily

loses the ability to feed itself. This hiatus barely harms a dog, but it might trigger disaster in an already over-sensitized psyche).

Neill was fully alert to this.

At the end of the first fortnight, when he caught a bad headcold after sitting up all night in the gym and decided to spend the next day in bed, he called Morley in to his office.

"The transference is getting much too positive. It needs to be eased off a little."

"I agree," Morley said. "But how?"

"Tell them I'll be asleep for forty-eight hours," Neill said. He picked up a huge stack of reports, plates and test-cards, bundled them under one arm. "I've deliberately over-dosed myself with sedative to get some rest. I'm worn to a shadow, full fatigue syndrome, load-cells screaming. Lay it on."

"Couldn't that be rather drastic?" Morley asked. "They'll hate you for it."

But Neill only smiled and went off to requisition an office near his bedroom.

That night Morley was on duty in the gym from 10-0 p.m. to 6-0 a.m. As usual he first checked that the orderlies were ready with their emergency trollies, read through the log left by the previous supervisor, one of the senior internes, and then went over to the circle of chairs. He sat back on the sofa next to Lang and leafed idly through a magazine, watching the three men carefully. In the glare of the arc-lights their lean faces had a sallow, cyanosed look. The senior interne had warned him that Avery and Gorrell might over-tire themselves at table-tennis, but by 11-0 p.m. they stopped playing and settled down in the armchairs. They read desultorily and made two trips up to the cafeteria, escorted each time by one of the orderlies. Morley told them about Neill, but surprisingly none of them made any comment.

Midnight came slowly. Avery read, his long body hunched up in an armchair, Gorrell played chess against himself.

Morley dozed.

Lang felt restless. The gym's silence and absence of movement oppressed him. He switched on the radiogram and played through a Brandenburg, analysing its theme-trains. Then he ran a word-association

test on himself, turning the pages of a book and using the top right-hand corner words as the control list.

Morley leaned over.

"Anything come up?" he asked.

"A few interesting responses." Lang found a note-pad and jotted something down. "I'll show them to Neill in the morning—or whenever he wakes up."

He gazed up pensively at the arc-lights. "I was just speculating. What do you think the next step forward will be?"

"Forward where?" Morley asked.

Lang gestured expansively. "I mean up the evolutionary slope. 300 million years ago we became air-breathers and left the primeval sea behind. Now we've taken the next logical step forward and eliminated the sleep function. What's next?"

Morley shook his head. "The two steps aren't analogous. Anyway, in point of fact you haven't left the primeval sea behind. You're still carrying a private replica of it around as your blood-stream. All you did was encapsulate a necessary chunk of the physical environment in order to escape it."

Lang nodded. "Maybe. I was thinking of something else. Tell me, has it ever occurred to you how completely death-orientated the psyche is?"

Morley smiled. "Now and then," he said, wondering where this led.

"It's curious," Lang went on respectively. "The pleasure-pain principle, the whole survival-compulsion apparatus of sex, the Super-Ego's obsession with tomorrow—most of the time the psyche can't see further than its own tombstone. Now why has it got this strange fixation? For one very obvious reason." He tapped the air with his forefinger. "Because every night it's given a pretty convincing reminder of the fate in store for it."

"You mean the black hole," Morley suggested wryly. "Sleep?"

"Exactly. It's simply a pseudo-death. Of course, you're not aware of it, but it must be terrifying." He frowned. "I don't think even Neill realises that, far from being restful, sleep is a genuinely traumatic experience."

So that's it, Morley thought. The great father analyst has been caught napping on his own couch. He tried to decide which were worse—pa-

tients who knew a lot of psychiatry, or those who only knew a little?

"Eliminate sleep," Lang was saying, "and you also eliminate all the fear and defence mechanisms erected round it. Then, at last, the psyche has a chance to orientate toward something more valid."

"Such as . . . ?" Morley asked.

"I don't know. Perhaps . . . Self?"

"Interesting," Morley commented. It was 3-10 a.m. He decided to spend the next hour going through Lang's latest test-cards.

He waited a discretionary five minutes, then got up and walked over to the surgery office.

Lang hooked an arm across the back of the sofa and watched the orderly room door.

"What's Morley playing at? Either of you seen him anywhere?"

Avery lowered his magazine. "Didn't he go off into the orderly room?"

"Ten minutes ago," Lang said. "He hasn't looked in since. There's supposed to be someone on duty with us continuously. Where is he?"

Gorrell, playing solitaire chess, looked up from his board. "Perhaps these late nights are getting him down. You'd better go and wake him before Neill finds out. He's probably fallen asleep over a batch of your test-cards."

Lang laughed and settled down in the sofa. Gorrell reached out to the radiogram, angled a record out of the rack and slid it onto the turn-table.

As the radiogram began to hum Lang noticed how strangely silent and deserted the gym seemed. The Clinic was always quiet, but even at night a residual ebb and flow of sound—a chair dragging in the orderly room, a generator charging under one of the theatres—edded through and kept it alive.

Now the air was flat and motionless. Lang listened carefully. The whole place had the dead, echoless feel of an abandoned building.

He stood up, looked around and strolled over to the orderly room. He knew Neill discouraged casual conversation with the control crew, but Morley's absence puzzled him.

He reached the door and peered through the port to see if Morley was inside.

The room was empty.

The light was on, two emergency trollies stood in their usual place against the wall near the door, a third was in the middle of the floor, a pack of playing cards strewn across its deck, but the group of three or four orderlies and internes had gone.

Lang hesitated, reached down to open the door, and found it had been locked.

He tried the handle again, then called out over his shoulder:

"Avery. There's nobody in here."

"Well, try next door. They're probably getting briefed for tomorrow."

Lang stepped over to the surgery office and squinted through the porthole. The light was off and two lab coats hanging inside the door cut off most of the window, but he could just see the white enamelled desk and big programme charts round the wall standing out in the dimness.

There was no one inside.

Avery and Gorrell were lounging back, watching him.

"Are they in there?" Avery asked.

"No." Lang turned the handle, felt it hold. "Door's locked."

Gorrell switched off the radiogram and he and Avery came over. They tried the two doors again.

"They're here somewhere," Avery said. "There must be at least one person on duty." He pointed to the end door. "What about that one?"

"Locked," Lang said. "69 always has been. I think it leads down to the basement."

"Let's try Neill's office then," Gorrell suggested. "If they aren't in there we'll stroll through to Reception and try to check ourselves out. This must be some stunt of Neill's."

There was no window in the door to Neill's office. Gorrell knocked, waited, knocked again more loudly.

Lang tried the handle, then knelt down. "The light's off," he reported.

Avery turned and looked round at the two remaining doors out of the gym, both in the far wall, one leading up to the cafeteria and the Neurology wing, the other into the car park at the rear of the Clinic.

"Didn't Neill hint that he might spring something like this on us?" he asked. "To assess our panic thresholds and decide whether we can

go through a night on our own."

"But Neill's asleep," Lang objected. "He'll be in bed for a couple of days. Unless . . ."

Gorrell jerked his head in the direction of the chairs. "Come on. He and Morley are probably watching us now. I thought there was something just a little too cunning about that headcold story."

Gorrell dragged the chess stool over to the sofa and set up the pieces, Avery and Lang stretched out in armchairs and opened magazines, turning the pages deliberately. Above them the banks of arc-lights threw their wide cones of light down into the silence.

The only noise was the slow left-right, left-right motion of the clock.
3-15 a.m.

The shift was imperceptible. At first a slight change of perspective, a mere fading and regrouping of outlines. Somewhere a focus slipped, a shadow swung slowly across a wall, its angles breaking and lengthening. The motion was fluid, a procession of infinitesimals, but gradually its total direction emerged.

The gym was shrinking. Inch by inch, the walls were moving inwards, encroaching across the periphery of the floor. As they shrank towards each other their features altered: the rows of sky-lights below the ceiling blurred and faded, the power cable running along the base of the wall dimmed and merged into the skirting board, the square baffles of the air vents vanished into the grey distemper.

Above, like the under-surface of an enormous lift, the ceiling sank slowly towards the floor . . .

Gorrell leaned his elbows on the chess-board, face sunk in his hands. He had locked himself in a perpetual check, but he continued to shuttle the pieces in and out of one of the corner squares, now and then gazing into the air for inspiration, while his eyes roved carefully up and down the walls around him.

Somewhere, he knew, Neill was watching him.

He moved, looked up and followed the wall opposite him down to the far corner, alert for the tell-tale signs of a retractable panel. He swept it up and down systematically, pausing to examine every dip and shadow. For some while he had been trying to discover Neill's spy-

hole, but without any success. The walls were blank and featureless; he had twice covered every square foot of the two facing him, and apart from the three doors there appeared to be no fault or aperture of even the most minute size anywhere on their surface.

The plug fell out onto the floor. Lang left it where it lay, went over and sat down on the arm of Gorrell's chair, smiling to himself.

"I've just disconnected the microphone," he confided quietly.

Gorrell looked round carefully. "Where was it?"

Lang pointed. "Inside the radiogram." He laughed softly. "I slipped the plug out. I thought I'd pull Neill's leg. He'll be wild when he realises he can't hear us."

"Why do you think it was in the gram?" Gorrell asked.

"What better place? Besides, it couldn't be anywhere else. Apart from in there." He gestured at the light bowl suspended from the centre of the ceiling. "You can see it's empty except for the two bulbs. The radiogram is the obvious place. I had a feeling it was there all along, but I wasn't sure until I noticed we had a radiogram, but no records."

Gorrell nodded sagely.

Lang moved away, chuckling to himself.

Above the door of Room 69 the clock ticked on at 3-15.

The motion was accelerating. What had once been the gym was now a small room, seven feet wide, a tight, almost perfect cube. The walls plunged inwards, along colliding diagonals, only a few feet from their final focus . . .

Avery noticed Gorrell and Lang pacing slowly round his chair.

"Either of you want to sit down yet?" he asked.

They both shook their heads. Avery rested for a few minutes and then climbed out of the chair and stretched himself.

"Quarter past three," he remarked, pressing his hands against the ceiling. "This is getting to be a long night."

He leaned back to let Gorrell pass him, and then started to follow the others round the narrow interval between the armchair and the walls.

"I don't know how Neill expects us to stay awake in this hole for

twenty-four hours a day," he went on. "Why haven't we got a radio in here? Even a gramophone would be something."

They sidled round the chair together, Gorrell, followed by Avery, with Lang completing the circle, their shoulders beginning to hunch, heads down as they watched the floor, their feet falling into the slow, leaden rhythm of the clock.

This, then, was the manhole: a narrow, verticle cubicle, a few feet wide, six deep. Above a solitary, dusty bulb gleamed down from a steel grille. As if crumbling under the impetus of their own momentum, the surface of the walls had coarsened, the texture was that of stone, streaked and pitted . . .

Gorrell bent down to loosen one of his shoelaces, and Avery bumped into him sharply, knocking his shoulder against the wall.

"O.K.?" he asked, taking Gorrell's arm. "This place is a little overcrowded. I can't understand why Neill ever put us in here."

He leaned against the wall, head bowed to prevent it touching the ceiling, and gazed about thoughtfully.

Lang stood squeezed into the corner next to him, shifting his weight from one foot to the other.

Gorrell squatted down on his heels below them.

"What's the time?" he asked. "Any idea?"

"I'd say about 3-15," Lang offered. "More or less."

"Lang," Avery asked, "where's the ventilator here?"

Lang peered up and down the walls, across the small square of ceiling. "Must be one somewhere." Gorrell stood up and they shuffled round, examining the floor between their feet.

"There may be a vent in the light grille," Gorrell suggested. He reached up and slipped his fingers through the cage, running them behind the bulb.

"Nothing there. Odd. I should have thought we'd burn up the air in here within half an hour."

"Easily," Avery said. "You know, there's something—"

Just then Lang broke in. He gripped Avery's elbow tightly.

"Avery," he asked. "Tell me. How did we get here?"

"What do you mean, get here? We're on Neill's team."

Lang cut him off. "I know that." He pointed at the floor. "I mean, in here."

Gorrell shook his head slowly. "Take it easy, Lang. How do you think, through the door."

Lang looked squarely at Gorrell, then at Avery.

"What door?" he asked calmly.

Gorrell and Avery hesitated, then swung round at each wall in turn, scanning it from floor to ceiling. Avery ran his hands over the heavy masonry, knelt down and felt the floor, digging his finger at the rough stone slabs. Gorrell crouched beside him, scrabbling at the thin seams of dirt.

Lang backed out of their way into a corner, and watched them impassively. His face was calm and motionless, but in his left temple a single vein fluttered insanely.

When they finally stood up, staring at each other unsteadily, he flung himself between them at the opposite wall.

"Neill! Neill!" he shouted. He pounded angrily on the wall with his fists. "Neill! Neill! Neill!"

Above him the light slowly began to fade.

Morley closed the door of the surgery office behind him and went over to the desk. Though it was 3-15 a.m., Neill, head-cold or no head-cold, was probably awake, working on the latest material in the office next to his bedroom. Fortunately that afternoon's test-cards, freshly marked by one of the internes, had only just reached his in-tray.

Morley picked out Lang's folder, and started to sort through the cards, looking for the association and auto-analysis results. He suspected that Lang's responses to some of the key-words and suggestion-triggers lying disguised in the question-forms might throw illuminating side-lights onto the real motives behind his equation of sleep and death.

The communicating door to the orderly room opened and an interne looked in.

"Do you want me to take over in the gym, Doctor?"

Morley waved him away. "Don't bother. I'm going back in a moment."

He selected the cards he wanted, began to initial his withdrawals. Glad to get away from the glare of the arc-lights he delayed his return

as long as he could, and it was 3-25 a.m. when he finally left the office and stepped back into the gym.

The men were sitting where he had left them. Lang watched him approach, head propped comfortably on a cushion. Avery was slouched down in his arm-chair, nose in a magazine, while Gorrell hunched over the chess-board, hidden behind the sofa.

"Anybody feel like coffee?" Morley called out, deciding they needed some exercise.

None of them looked up or answered. Morley felt a flicker of annoyance, particularly at Lang, who was staring past him at the clock.

Then he saw something that made him slow down and stop.

Lying on the polished floor ten feet from the sofa was a chess-piece. He went over and picked it up. The piece was the black king. He wondered how Gorrell could be playing chess with one of the two essential pieces of the game missing when he noticed three more pieces lying on the floor nearby.

His eyes moved along to where Gorrell was sitting.

Scattered over the floor below the chair and sofa was the rest of the set. Gorrell was slumped forwards over the stool. One of his elbows had slipped and the arm dangled between his knees, knuckles resting on the floor. The other hand supported his face. Dead grey eyes peered down at his feet.

Morley ran over to him, yelling: "Lang! Avery! Get the orderlies in here!"

He reached Gorrell, pulled him back off the stool.

"Lang!" he called again.

Lang was still staring at the clock, his body twisted in the stiff, unreal posture of a waxworks dummy.

Morley let Gorrell loll back into the chair, leaned over and glanced at Lang's face.

He quickly crossed to Avery, stretched out behind the magazine, and jerked his shoulder. Avery's head bobbed stiffly. The magazine slipped and fell from his hands, leaving his fingers curled in front of his face.

Morley stepped over Avery's legs to the radiogram. He switched it on, gripped the volume control and swung it round to full amplitude.

Above the orderly room door an alarm bell shrilled out through the silence.

"Weren't you with them?" Neill asked sharply.

"No," Morley admitted. They were standing by the door of the emergency ward. Two orderlies had just dismantled the electrotherapy unit and were wheeling the console away on a trolley. Outside in the gym a quiet, urgent traffic of nurses and internes moved past. All but a single bank of the arc-lights had been switched off, and the gym seemed like a deserted stage at the end of a performance.

"I slipped into the office to pick up a few test-cards," he explained. "I wasn't gone more than ten minutes."

"You were supposed to watch them continuously," Neill snapped. "Not wander off by yourself whenever you felt like it. What do you think we had the gym and this entire circus rigged up for?"

It was a little after 5-30 a.m. After working hopelessly on the three men for a couple of hours he was close to exhaustion. He looked down at them, lying inertly in their cots, canvas crash sheets buckled up to their chins. They had barely changed, but their eyes were open and unblinking, and their faces had the empty, reflexless look of psychic zero.

An interne bent over Lang, thumbing a hypo. Morley stared at the floor. "I think they would have gone anyway."

"How can you say that?" Neill clamped his lips together. He felt frustrated and impotent. He knew Morley was probably right—the three men were in terminal withdrawal, unresponsive to either insulin or electro-therapy, and a vice-tight catatonic seizure like that didn't close in out of nowhere—but as always refused to admit anything without absolute proof.

He led the way into his office and shut the door.

"Sit down." He pulled a chair out for Morley and prowled off round the room, slamming a fist into his palm.

"All right, John. What is it?"

Morley picked up one of the test-cards lying on the desk, balanced it on a corner and spun it between his fingers. Phrases swam through his mind, tentative and uncertain, like blind fish.

"What do you want me to say?" he asked. "Reactivation of the infantile imago? A regression into the great, slumbering womb? Or to put it more simply still—just a fit of pique?"

"Go on."

Morley shrugged. "Continual consciousness is more than the brain can stand. Any signal repeated often enough eventually loses its meaning. Try saying the word 'cow' fifty times. After a point the brain's self-awareness dulls. It's no longer able to grasp who or why it is, rides adrift."

"What do we do then?"

"Nothing. Short of re-scoring all the way down to Lumbar 1. The central nervous system just won't wear narcotomy."

Neill shook his head, came back from the window. "You're getting lost," he said curtly. "Juggling with generalities isn't going to bring those men back. First we've got to find out what happened to them, what they actually felt and saw."

Morley frowned dubiously. "That jungle's marked 'private.' Even if you do, is a psychotic's withdrawal drama going to make any sense?"

"Of course it will. However insane it seems to us it was real enough to them. If we know the ceiling fell in or the whole gym filled with ice cream or suddenly turned into a maze we've got something to work on." He sat down on the desk. "Listen. Remember that story of Chekov's you told me about?"

"The Bet"? Yes."

"I read it last night. Curious. It's a lot nearer what you're really trying to say than you know." He gazed shrewdly round the office. "This room in which the man is penned for ten years, symbolizing the mind driven to the furthest limits of self-awareness . . . My hunch is that something very similar happened to Avery, Gorrell and Lang. They must have reached a stage beyond which they could no longer contain the idea of their own identity, more or less as you said. But far from being unable to grasp the idea I'd say that they were conscious of nothing else. Like the man in the spherical mirror, who can only see a single gigantic eye staring back at him."

"So you think their withdrawal is a straightforward escape from the eye, the vast overwhelming ego?"

"Not escape," Neill corrected. "The psychotic never escapes from anything. He's much more sensible. He merely readjusts reality to suit himself. Quite a trick to learn, too. The room in Chekov's story gives me a lead as to how they might have readjusted. Their particular equivalent of this room was the gym. I'm beginning to realize it was a big

mistake to put them in there—all those lights blazing down, the huge floor, high walls. They merely exaggerate the sensation of overload. In fact the gym might easily have become an external projection of their own egos."

Neill drummed his fingers on the desk, then snapped them sharply. "My guess is that at this moment they're either striding around in there the size of hundred-foot giants, or else they've cut it down to their own dimensions. More probably that. They've just pulled the gym in on themselves."

Morley grinned bleakly. "So all we've got to do now is pump them full of honey and apomorphine and coax them out of their holes. Suppose they refuse?"

"They won't," Neill said. "You'll see."

There was a rap on the door. An interne stuck his head through.

"Lang's coming up, Doctor. He's calling for you."

Neill bounded out.

Morley followed him into the ward.

Lang was lying in his cot, body motionless under the crash sheet, his face a mask. His lips were parted slightly. No sound came from them but Morley, bending over next to Neill, could see his hyoid bone vibrating in spasms.

"He's very faint," the interne warned. "I doubt if he'll hold it. These may be fragments."

Neill pulled up a chair and sat down next to the cot. He made a visible effort of concentration, flexing his shoulders like a weight-lifter. He bent his head close to Lang's and listened.

Five minutes later it came through again.

Lang's lips quivered. His body arched under the crash sheet straining at the buckles, and then subsided.

"Neill . . . Neill," he whispered. The sounds, thin and strangled, seemed to be coming from the bottom of a well. "Neill . . . Neill . . . Neill . . ."

Neill stroked his forehead with a small, neat hand.

"Yes, Bobby," he said gently. His voice was feather-soft, caressing. "I'm here, Bobby. You can come out now."

Bass Fishermen will Say I'm Crazy ... until they try my method!



But, after an honest trial, if you're at all like the other men to whom I've told my strange plan, you'll guard it with your last breath.

Don't jump at conclusions. I'm not a manufacturer of any fancy new lure. I have no reels or lines to sell. I'm a professional man and make a good living in my profession. But my all-absorbing hobby is fishing. And, quite by accident, I've discovered how to go to waters that most fishermen say are fished out and come in with a good catch of the biggest bass that you ever saw. The savage old bass that got so big, because they were "wise" to every ordinary way of fishing.

This METHOD is NOT spinning, trolling, casting, fly fishing, trot line fishing, set line fishing, hand line fishing, live bait fishing, jugging, netting, trapping, or seining. No live bait or prepared bait is used. You can carry all of the equipment you need in one hand.

The whole method can be learned in twenty minutes — twenty minutes of fascinating reading. All the extra equipment you need, you can buy locally at a cost of less than a dollar. Yet with it, you can come in after an hour or two of the greatest excitement of your life, with a stringer full. Not one or two miserable 12 or 14 inch over-sized keepers — but five or six real beauties with real poundage behind them. The kind that don't need a word of explanation of the professional skill of the man who caught them. Absolutely legal, too — in every state.

This amazing method was developed by a little group of professional fishermen. Though they were public guides, they

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Send me your name. Let me tell you how you can try out this deadly method of bringing in big bass from your local waters. Let me tell you why I let you try out my unusual method for the whole fishing season without risking a penny of your money. Send your name for details of my money-back trial offer. There is no charge for this information, now or at any other time. Just your name is all I need. But I guarantee that the information I send you will make you a complete skeptic — until you decide to try my method! And then, your own catches will fill you with disbelief. Send your name, today. This will be fun.

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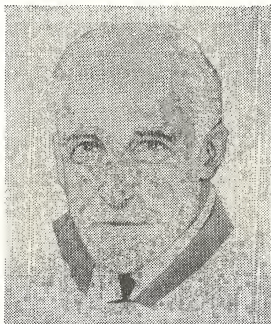
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